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ABSTRACT

This document contains the curriculum for the first nursing course in the Licensed Vocational Nurse Mobility Track Project. The project is designed to provide selected Licensed Vocational Nurses (LVNs) the opportunity to complete the nursing course requirements for an Associate of Applied Science Degree in Nursing (ADN) in three semesters of part-time course work. This course assesses and evaluates nursing knowledge, skills, and attitudes in relationship to the transition to associate degree nursing practice. The content focuses on review of concepts basic to nursing practice and presents content to expand the student's nursing knowledge, skills, and attitudes as they develop in the ADN role of provider of patient care. Laboratory experiences provide the student the opportunity to demonstrate the application of prior learning and new knowledge to clinical situations. The six modules of the course cover the following topics: nursing--profession and process; the psychosocial need; the safety need; the rest, comfort, activity, and regulatory need; the nutrition and elimination needs; and the oxygen need. Each module contains an introduction, module objectives, learning activities, content information, learning resources, and a pretest/posttest. Appendices provide entry-level objectives and materials for the last four modules. (KC)

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ED299416

LVN TO ADN:

INNOVATIVE, NON-TRADITIONAL

LEARNING PROJECT

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AUSTIN COMMUNITY COLLEGE
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P.O. Box 2285 Austin, Texas 78768

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AUSTIN COMMUNITY COLLEGE
ASSOCIATE DEGREE NURSING PROGRAM

LVN MOBILITY TRACK PROJECT

The purpose of the Licensed Vocational Nurse Mobility Track Project is to provide selected Licensed Vocational Nurses (L.V.N.'s) the opportunity to complete the nursing course requirements for an Associate of Applied Science Degree in nursing in three semesters of part-time course work. The Mobility Track decreases the number of classroom and laboratory hours required to complete nursing courses and additionally, grants college credit for previous work and educational experience. The curriculum for the LVN Mobility Track has been developed from the ACC-ADN program philosophy and conceptual framework. Students in this Mobility Track will be required to meet the existing program objectives. All general education course requirements remain the same as the generic curriculum: however, most of these courses must be completed prior to entry into the LVN Mobility Track. (SEE DIAGRAM I).

The purpose of this project is the development, implementation and evaluation of the first nursing course in the LVN Mobility Track, NSG 1805: Transition to Associate Degree Nursing. Upon approval of the project, a project director and Advisory Committee will be selected. The Project Director will be responsible for coordination of all project activities. The Advisory Committee will provide consultation and guidance in all aspects of the project.

During the fall 1987 semester, all course materials will be developed for NSG 1805 and students will be selected for admission. The course materials will include independent learning modules for each unit of study. These modules will incorporate a variety of learning resources and activities which may include required readings, computer-assisted instruction packages, films/videotapes and/or faculty developed materials. Through the use of these modules, students will be accountable for assessment and fulfillment of their own learning needs within a flexible time frame. In addition, seminars will be held weekly to clarify content and support the learning process. The combined use of learning modules and faculty-directed seminars will provide structure for individualized learning. Learning laboratory and clinical learning activities will be designed to provide the student the opportunity to apply their knowledge and skills to actual and simulated patient situations. The focus of the laboratory learning experiences will be the utilization of knowledge to develop the identified competencies of the Associate Degree graduate.

During the Spring 1988 semester, the nursing course will be implemented. Additionally, appropriate data will be collected and analyzed to evaluate all aspects of the course.

DIAGRAM I

COMPARISON BETWEEN LVN MOBILITY TRACK AND GENERIC ADN CURRICULUM

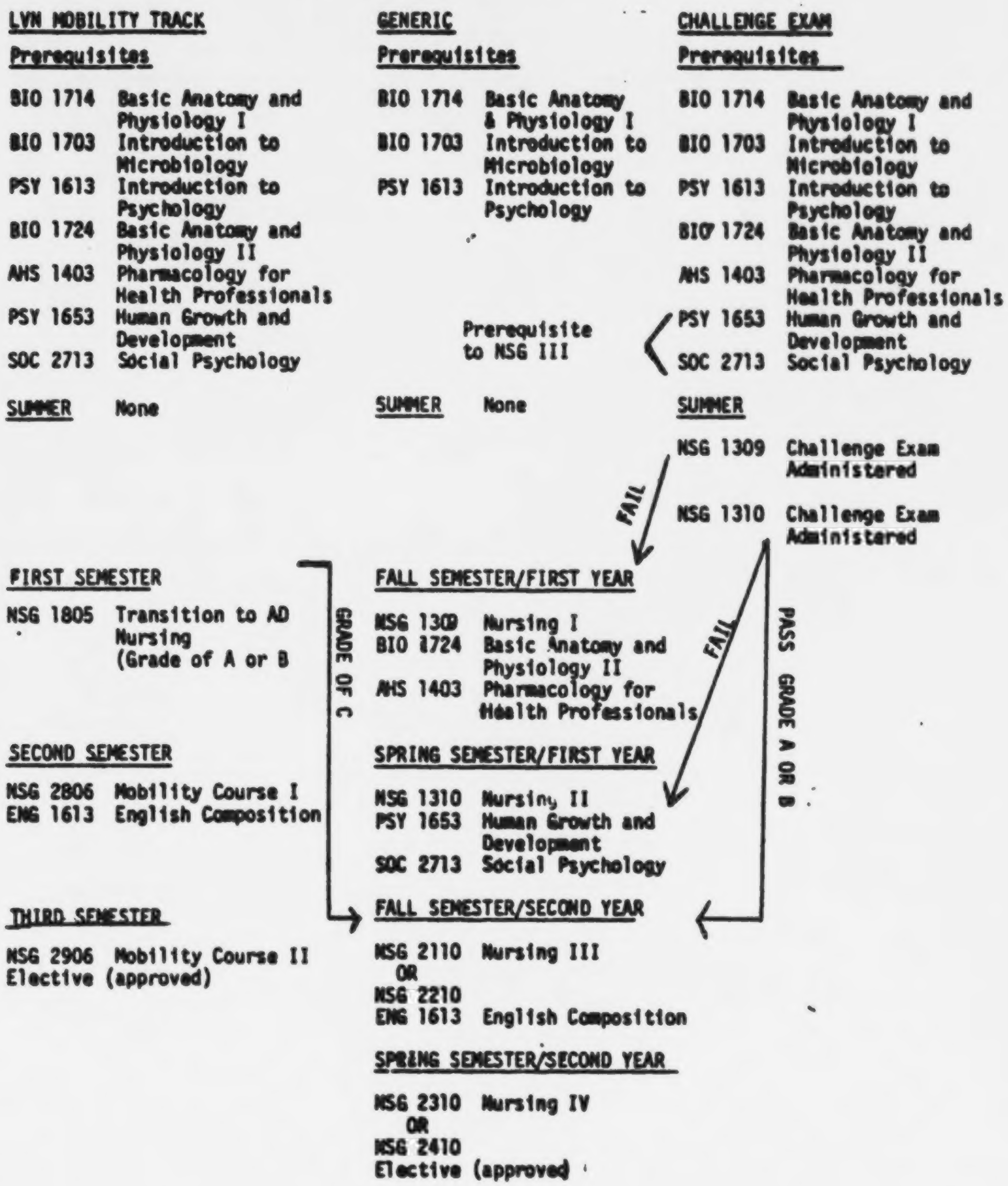
GENERIC	CREDIT HOURS	LVN MOBILITY TRACK	CREDIT HOURS
Prerequisites		**Prerequisites**	
BIO 1714 Basic Anatomy and Physiology I	4	BIO 1714 Basic Anatomy and Physiology	4
BIO 1703 Introduction to Microbiology	3	BIO 1703 Introduction to Microbiology	3
PSY 1613 Introduction to Psychology	3	PSY 1613 Introduction to Psychology	3
		BIO 1724 Basic Anatomy and Physiology II	4
		AHS 1403 Pharmacology for Health Professionals	3
		PSY 1653 Human Growth and Development	3
		SOC 2713 Social Psychology	3
FALL SEMESTER/FIRST YEAR		**FALL SEMESTER/FIRST YEAR**	
NSG 1309 Nursing I	9	NSG 1805 Transition to AD nursing	5 *14
BIO 1724 Basic Anatomy and Physiology II	4		
AHS 1403 Pharmacology for Health Professionals	3		
SPRING SEMESTER/FIRST YEAR		**SPRING SEMESTER/FIRST YEAR**	
NSG 1310 Nursing II	10	NSG 2806 Mobility Course I	6 ** 4
PSY 1653 Human Growth and Development	3	ENG 1613 English Composition	3
SOC 2713 Social Psychology	3		
FALL SEMESTER/SECOND YEAR		**FALL SEMESTER/SECOND YEAR**	
NSG 2110 Nursing III OR NSG 2210	10	NSG 2906 Mobility Course II	6 * 4
ENG 1613 English Composition	3	Elective (approved)	3
SPRING SEMESTER/SECOND YEAR			
NSG 2310 Nursing IV OR NSG 2410	10		
Elective (approved)	3		
	68		68

* Upon successful completion of this course, 14 credit hours will be awarded for previous educational/experiential learning.

** Upon successful completion of this course, 4 credit hours will be awarded for previous educational/experiential learning.

COMPARISON OF MOBILITY OPTIONS

DIAGRAM II



LVN MOBILITY TRACK

Prerequisites

BIO 1714 Basic Anatomy and Physiology I
BIO 1703 Introduction to Microbiology
PSY 1613 Introduction to Psychology
BIO 1724 Basic Anatomy and Physiology II
AHS 1403 Pharmacology for Health Professionals
PSY 1653 Human Growth and Development
SOC 2713 Social Psychology

SUMMER None

FIRST SEMESTER

NSG 1805 Transition to AD Nursing (Grade of A or B

SECOND SEMESTER

NSG 2806 Mobility Course I
ENG 1613 English Composition

THIRD SEMESTER

NSG 2906 Mobility Course II
Elective (approved)

GENERIC

Prerequisites

BIO 1714 Basic Anatomy & Physiology I
BIO 1703 Introduction to Microbiology
PSY 1613 Introduction to Psychology

SUMMER None

FALL SEMESTER/FIRST YEAR

NSG 1309 Nursing I
BIO 1724 Basic Anatomy and Physiology II
AHS 1403 Pharmacology for Health Professionals

SPRING SEMESTER/FIRST YEAR

NSG 1310 Nursing II
PSY 1653 Human Growth and Development
SOC 2713 Social Psychology

FALL SEMESTER/SECOND YEAR

NSG 2110 Nursing III
OR
NSG 2210
ENG 1613 English Composition

SPRING SEMESTER/SECOND YEAR

NSG 2310 Nursing IV
OR
NSG 2410
Elective (approved)

CHALLENGE EXAM

Prerequisites

BIO 1714 Basic Anatomy and Physiology I
BIO 1703 Introduction to Microbiology
PSY 1613 Introduction to Psychology
BIO 1724 Basic Anatomy and Physiology II
AHS 1403 Pharmacology for Health Professionals
PSY 1653 Human Growth and Development
SOC 2713 Social Psychology

SUMMER

NSG 1309 Challenge Exam Administered
NSG 1310 Challenge Exam Administered

NURSING 1805

COURSE INFORMATION/REQUIREMENTS

COURSE DESCRIPTION:

This is the first nursing course in the LVN Mobility Track. It provides the student and the faculty the opportunity for the assessment and evaluation of nursing knowledge, skills and attitudes in relationship to the transition to associate degree nursing practice. The content focuses on review of concepts basic to nursing practice and presents content to expand the student's nursing knowledge, skills and attitudes as they develop in the ADN role of provider of patient care. Selected laboratory experiences provide the student the opportunity to demonstrate the application of prior learning and new knowledge to clinical situations.

LEVEL OBJECTIVES:

Upon completion of this level, the student should be able to:

1. Apply the nursing process to aid an adult patient experiencing stressors altering his ability to maintain his needs.
2. Utilize the communication process to facilitate effective interactions with peers, faculty, patients, and health care personnel.
3. Apply teaching-learning principles when providing adult patients with strateties for maintaining their needs.
4. Function as a member of the nursing team
5. Recognize the relationship between learning and personal professional growth.

COURSE OBJECTIVES:

Upon successful completion of this course, the student should be able to:

1. Apply the nursing process in delivery of individualized nursing care to adult patients.
2. Utilize the communication process to facilitate effective interactions with peers, faculty, patients and health care personnel.
3. Apply teaching-learning principles when providing adult patients with strategies for maintaining their needs.
4. Identify the ethical/legal framework for associate degree (RN) nursing practice.
5. Demonstrate accountability as a participant in the health care team in the associate degree nursing student role.
6. Recognize the relationship betwen learning and personal and professional growth.

CONTENT THREADS:

Content threads are specific concepts that recur in the curriculum design and reflect areas of increased knowledge, skills, and attitudes. All threads are integral parets of individual courses and all learning experiences. Content threads tend to create unified learning experiences rather than scattered, unrelated learning situations.

1. Physical and behavioral sciences
2. Therapeutic interventions
3. Nursing skills
4. Ethical and legal aspects of nursing
5. Roles of a technical nurse

PROCESS THREADS:

Process threads are central concepts devived from the conceptual framework that provide continuity for the curricular design and indicate the areas that the content threads will afford increasing expertise. These process threadsare:

1. Stressors
2. PERSON
3. Nursing Process

ORGANIZATION PLACEMENT:

Prerequisites for this course are a grade of C or better in each of the following:
BIO 1714 or 2714
BIO 1724 or BIO 2724
BIO 1703 or BIO 2704
PSY 1613
PSYC 1653
SOC 1613 or SOC 2713
AHS 1403

TIME ALLOTMENT:

THEORY: 64 hours

CLINICAL/LEARNING LABORATORY: 48 hours

LENGTH: 16 weeks

METHOD OF INSTRUCTION:

Group sessions will be used for general dispersal of theoretical material. Simulation, role playing, and guest speakers add breadth and depth to classes. Models, charts, displays, film strips, transparencies and tapes will be used in the classroom and will be available for independent study. Learning labs will be held to demonstrate and practice nursing skills. Pre- and post conferences will be held on clinical days. Independent study sessions and conferences will also be provided.

TEACHING PERSONNEL:

All nursing instructors and clinical specialists have a minimum of a Master's degree in nursing. Clinical laboratory experiences will have no more than a 1:10 ratio of faculty to students.

TEACHING FACILITIES:

Classroom, library, learning laboratory, and clinical laboratory. Clinical laboratory facilities include a variety of adult patient care settings. Students provide care for patients in these facilities under the supervision of an instructor and staff member. The Learning Laboratory is-located on the Riverside Campus. It provides the opportunity for students to learn and practice skills in a simulated setting.

CLASSROOM:

Classroom presentations are planned to assist the student to acquire and understand the nursing knowledge necessary for competent and safe nursing practice. Each classroom presentation is developed from the Independent Learning Modules. The faculty functions as facilitators of learning and resource persons in the classroom setting. To benefit fully from classroom learning experiences, students are expected to complete the Independent Learning Module prior to the scheduled class(see Course Calendar).

LEARNING LABORATORY:

The purpose of the Learning Laboratory is the development and/or enhancement of technical nursing skills. It will be utilized this semester to facilitate the student's acquisition of knowledge, skills and attitudes of selected clinical nursing procedures through both structured and independent learning experiences. Each Learning Laboratory experience is developed from the Independent Learning Modules discussed in the classroom setting to provide for continuity of learning.

To benefit fully from the learning experience, the student is expected to review the Learning Laboratory material prior to the scheduled laboratory time (see Course Calendar) and complete all the designated requirements.

The philosophy of the Learning Laboratory is directed towards meeting individual student learning needs. The use of innovative teaching strategies in a minimal stress mileu allows the student to progress at his/her own pace within a given time frame. This plan provides the student the flexibility and freedom to review materials and practice psychomotor skills as needed for development of safe practice and to increase self-confidence.

CLINICAL LABORATORY:

The primary objective of the Clinical Laboratory is to provide each student the opportunity to apply nursing knowledges, skills and attitudes in an actual patient situation. The Clinical Focus provides structure and direction for this learning experience. The Clinical Focus is developed from the course objectives and Independent Learning Modules to provide continuity and cohesiveness in the learning process.

COURSE REQUIREMENTS:

1. The student is expected to participate in class and clinical activities and to have done previous preparation so that learning activities may be more effective.
2. Assignments are to be handed in when due unless prior arrangements have been made with the instructor.
3. Each student is encouraged to attend all learning experiences in the nursing program. Although the grade earned is based on the student's attainment of the course objectives, regular and punctual attendance is important to the teaching-learning process.

   - Because of the accelerated pace and enormous amount of content presented in the curriculum, students will be required to adhere to the following attendance policies:

     a. students will be responsible for all materials presented in each class.
     b. attendance at clinical laboratory is required
     It is the student's responsibility to initiate make-up clinical laboratories with the instructor. All clinical laboratories missed must be made up.

     c. the student must notify his/her instructor of a clinical absence prior to the scheduled clinical laboratory experience. The student must notify the instructor every day she/he is absent. If the student is scheduled for clinical experience, she/he must notify the clinical instructor and the clinical unit at least ONE hour prior to the time she/he is expected on that unit. Failure to notify the unit and the instructor will result in probation. Instructor-initiated withdrawal may result if this situation occurs a second time.

     d. all clinical laboratories missed must be re-scheduled. It is the student's responsibility to schedule clinical make up time with the faculty.

     e. Failure to make up clinical time in a timely manner may result in instructor-initiated withdrawal of the student.

Instructor-initiated withdrawals may be appealed by the student within 10 days. The appeal is made to the Chairperson of the ACC-ADN Admissions Committee.

FOR FURTHER APPEAL INFORMATION, REFER TO THE ESTABLISHED GRIEVANCE PROCEDURE

4. Complete a written exam (90% accuracy) on calculation of medications prior to first clinical experience.

GENERAL EXPECTATIONS:

The Student is Expected to Assume Responsibility for Learning By:

1. Using course materials to plan and direct own learning.
2. Making a schedule for own study in order to complete course requirements and assignments in allotted time.
3. Preparing for group discussion, learning laboratory experience, and clinical assignments.
4. Actively participating in all learning experiences, such as class discussion, pre- and post-conference, etc.
5. Attending class and seeking instructor guidance as needed

All written assignements are due on the date specified. Satisfactory completion of the assignment includes meeting assignment objectives and following specified format. Unsatisfactory work must be corrected and resubmitted to the clinical instructor within a specified time. If the written work is still unsatisfactory, the student will be conferenced to identify the problems and/or learning needs.

In order to successfully complete this course, the student must:

CLASSROOM:

1. Have a theory grade of 75% or above as derived from written unit/course examinations.
2. Satisfactorily complete all required written assignments

LABORATORY LEARNING LAB:

1. Attend laboratory sessions
2. Take responsibility for arranging for skill practice time with appropriate persons.

CLINICAL

1. Receive a satisfactory on the Clinical Evaluation Tool
2. Appear promptly, in appropriate uniform, and with adequate preparation for clinical experience. (If the student is late, that time may be counted as time absent, at the discretion of the instructor). Appropriate uniform is outlined in the Student Handbook.
3. Satisfactorily complete all clinical laboratory written assignments and submit at specified time.

EVALUATION OF GRADING:

Both laboratory and classroom theory components must be passed in order to successfully complete Nursing 1805.

CONTINUATION:

In order to continue in the Mobility Tract, the students must obtain a course grade of A or B. Students receiving a C grade may be admitted to the generic program on a space available basis.

CLASSROOM THEORY:

The classroom theory component of Nursing 1805 must be completed with a cumulative average of 75% based upon:

A. Examinations

1. There will be five (5) written examinations and one (1) final examination (includes theory and skills) scheduled at specific times during the semester (see calendar for times and dates).
2. Of the first five (5) exams, a student will drop the lowest grade for final average computation.
3. Each examination, except the final, constitutes 1/6 of the final grade with the final accounting for 2/6 of the grade.
4. Examination questions will be short-answer, i.e., multiple choice, true and false, matching. The major focus of the exams will be application of knowledge.
5. There will be no make-up examinations except for the final examination which may be made up only at the discretion of the faculty. An absence from a scheduled examination will be used as the lowest grade and dropped from the computation of the final course average.
6. Students are expected to prepare adequately for examinations and to take responsibility for their own actions.
7. All examinations will be proctored and graded by the faculty.
8. Any student who engages in any form of cheating will be subject to dismissal from the program.
9. All examinations will be graded as promptly as possible. Instructors will review the test items with students at announced dates and times. During this review it is expected that all discussion of test items will be done in a responsible manner.
10. Any student who questions an answer on an exam may present his/her rationale based upon required learning resources. This rationale must be presented in writing with documented sources within one (1) week after test is returned.
11. By appointment, examinations will be available for review throughout the semester. The student is encouraged to avail him/herself of this opportunity.

LEARNING LABORATORY:

This component of Nursing 1805 will be graded in conjunction with the clinical laboratory as satisfactory or unsatisfactory.

1. Students are expected to prepare adequately for each Learning Laboratory experience through the use of the Learning Laboratory materials.

2. All required written work must be completed correctly and turned in at the time designated by the faculty.

4. Students are expected to identify their own learning needs and review materials and/or practice psychomotor skills as necessary to prepare themselves for safe clinical practice.

5. Students are expected to actively participate in all scheduled Learning Laboratory experiences. (See attendance policies).

6. Students must demonstrate satisfactory performance of designated skills prior to performing these skills in the clinical setting.

7. The student who repeatedly cannot accomplish selected nursing skills will be conferenced by the faculty. The primary purpose of the conference is to conduct further assessments in order to establish an individualized learning plan.

CLINICAL LABORATORY:

The Clinical Laboratory component of Nursing 1805 will be graded as satisfactory or unsatisfactory based upon the attainment of all objectives in the Evaluation Tool.

1. Students are expected to attend all Clinical Learning Laboratories as scheduled (see Attendance Policy).

2. Each student is expected to come to the clinical laboratory experience appropriately prepared to carry out her/his assignment. Students who are not adequately prepared, i.e., does not have a written nursing process, cannot assess and plan, or cannot safely perform skills , will not be allowed to care for the patient and may be sent home from clinical experience. This will be deemed as a clinical absence and conference and probation may result. If the student lacks the requisite clinical skills, the instructor along with the student must formulate and plan for meeting those learning needs. These may include referral to the learning laboratory for additional practice time.

3. The student is expected to use the Clinical Focus to guide her/his learning in the clinical area. It is the student's responsibility to obtain the Clinical Focus and to participate in the identified learning activities.

4. Students are required to complete all written assignments and submit them at the time designated by the faculty. Unsatisfactory written work must be corrected and resubmitted at the time designated by the faculty.

5. **Safety of the patient is a primary concern of the ADN faculty. Therefore, any student who jeopardizes the safety of a patient may be dismissed from the clinical learning experience.**

6. Evaluation of clinical performance includes both self-evaluation by the student and faculty evaluation of the student. At designated times throughout the semester, there will be scheduled conferences with student and clinical instructor. It is the responsibility of the student to schedule and attend these conferences. Other conferences may be scheduled at the request of either student or faculty.

TEXTBOOKS AND SUPPLEMENTS:

REQUIRED:

Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. J.B. Lippincott Co. 1984

Gahart, Betty Intravenous Medications 4th Ed. St. Louis: C.V.Mosby Co. 1985

Johnson, Barbara Schoen Adaption and Growth Philadelphia: J.B. Lippincott Co. 1986

Nurses Drug Handbook '87 Springhouse, PA: Springhouse Corp. 1987

Nurse Reference Library (1985) Practices St. Louis: C.V.Mosby Co.

Williams, Sue Rodwell Essentials of Nutrition and Diet Therapy 4th Ed. St. Louis: C.V. Mosby Co. 1986

RECOMMENDED:

Curren, Ann M. Math for Meds 5th Ed. San Diego: Walker, Inc.

Fischback, Frances A Manual of Laboratory Diagnostic Tests Philadelphia: J.B. Lippincott Co. 1984

OR

Diagnostics: Springhouse, PA: Springhouse Corp. 1985

MODULE I

NURSING: PROFESSION AND PROCESS

11

INTRODUCTION:

This module introduces nursing as a profession, the nursing process, and the ethical/legal decision making in nursing as well as the design of Austin Community College Associate Degree Nursing Program. This module is divided into the following three submodules:

1. Overview of the Nursing Profession
2. Overview of the Austin Community College Associate Degree Nursing Program.
3. Overview of the Nursing Process

MODULE OBJECTIVES:

Upon completion of the module, the student should be able to:

1. Describe the types of health care delivery systems available in the United States.
2. Identify factors influencing ethical/legal decision making in nursing.
3. Describe the major physiologic and psychologic regulators and their role in the maintenance of homeostasis.
4. Discuss the ADN roles and functions as identified by the NLN.
5. Explain the six basic health needs of man (PERSON)
6. Explain the sequential steps of the nursing process
7. Explain the purposes of the nursing process
8. Discuss the documentation of the nursing process
9. Function as a member of the nursing team
10. Recognize the relationship between learning and professional growth by meeting the submodule objectives.

SUBMODULE I

OVERVIEW OF THE NURSING PROFESSION

A. INTRODUCTION:

This submodule introduces nursing as a profession. The roles and functions of nursing are explored in relationship to contemporary health care delivery systems and the ethical/legal responsibilities of the nurse. This knowledge provides the basis for understanding the role of the nurse in society.

B. TERMINOLOGY LIST

1. standard of practice
2. accountability
3. advocacy
4. ethics
5. legal
6. American Nurses Association
7. National League of Nursing

C. GLOSSARY OF LEGAL TERMS

ASSAULT: Performing or threatening to perform intentional injury, bodily harm to another by administration of poison, anesthetics or narcotics, or willful and wrongful blows with weapons or other instruments.

BATTERY: Intentional harmful or offensive bodily contact with another person without consent or with consent exceeded or fraudulently obtained.

BOARD OF NURSING: The government agency that issues nursing licenses and regulations following the precepts of legislated nursing practice acts. The Board of Nursing then sets up the machinery to enforce compliance and to punish violations of the act and the regulations.

CONTRIBUTORY NEGILGENCE: Conduct by the plaintiff that causes unreasonable harm or risk to himself and/or his property. It may negate a negligence suit.

CRIME (PUBLIC OFFENSE, CRIMINAL OFFENSE): The breach of any law established for protection of the public, as distinguished from an infringement of the private rights of an individual, for which a penalty is imposed or punishment inflicted in any judicial proceeding.

DEFAMATORY STATEMENT: One which exposes a person to hatred, contempt, or aversion, or lowers the opinion of him in the community. Such a statement may be oral, written, pictured, etc. Defamation includes libel and slander.

DUTY OF CARE: In the performance of her professional duties, a nurse is required to exercise the degree of care and skill which a reasonably prudent nurse with similar training and experience practicing in the same community would exercise under the same or similar circumstances.

FALSE IMPRISONMENT (ILLEGAL DETENTION): Intentional confinement without authorization by one who physically constricts the plaintiff, using force, threat of force, or confining clothing or structures.

GROSS NEGLIGENCE: Characterized by a willful and reckless disregard for the person or property of another.

INVASION OF PRIVACY: Trespasses upon the body and/or personality of another without his consent.

LIBEL: Defamatory statement conveyed by written words, pictures, recordings, broadcasts, etc.

MALPRACTICE: Negligent conduct in the rendering of professional services by a person with professional education and training.

NEGLIGENCE: The failure of a non-professional, in treating or caring for a patient, to conduct himself with reasonable prudence and skill. This applies to many other situations, other than those involved with patients.

NURSE-PATIENT RELATIONSHIP: Legal status which is created the moment a nurse actually provides nursing care to another person.

NURSING ASSOCIATIONS: Established for such purposes as, (1) promoting high standards of nursing education and practice, (2) interpreting nursing to the public, (3) promoting the social and economic welfare of its members, and (4) encouraging the participation of nurses in local, national, and international activities.

SLANDER: Oral defamation

TORT: A civil wrong committed against the person or property of another.

COMMON ELEMENTS OF NURSING MALPRACTICE SUITS:

1. Nurse-patient relationship exists where the nurse owes a duty of care to the patient.
2. The nurse fails to meet the specified standard of care (breach of duty).
3. Causation-- must be a reasonably close cuase and effect relationship between the nurse's conduct and the alleged injury.
4. Personal injury-- harm or injury resulted to patient which may include economic loss, actual injury or psychological damage, pain, or suffering.

ELEMENTS OF INFORMED CONSENT:

1. Explanation of the proposed treatment
2. Explanation of inherent risks and benefits
3. Alternatives to the proposed treatment
4. Adequate time for patient questions
5. Option to withdraw at any time

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Discuss the major historical factors affecting the development of contemporary nursing.
2. Discuss the modern definitions and philosophies of nursing.
3. Discuss the different practice settings, careers and roles for nurses including usual educational requirements.
4. Discuss societies' influence on the health care delivery systems.
5. Describe the types of health care agencies
6. Discuss factors which influence the patients' entry and use of the health care delivery system.
7. Discuss the financing of health care in relation to:
    a. DRG's
    b. HMO's
    c. private insurance
    d. Medicaide
    e. Medicare
8. Identify problems existing with today's health care delivery system in relationship to the impact of nursing.
9. Identify factors which impact upon formation of values:
    a. value transmission
    b. developmental stages
    c. sociocultural
10. Describe the process of value clarification

11. Utilize a value clarification strategy to examine personal values.
12. Describe how value clarification can be utilized personally and professionally.
13. Differentiate between the terms ethical and legal
14. Identify factors influencing ethical/legal decision making in nursing:
    a. Patient's Bill of Rights
    b. Professional organizations:
        (1) National League for Nursing
        (2) American Nurses Association
        (3) Organization for the Advancement of Associate Degree Nursing.
        (4) Student Nursing Association
    c. Nurse Practice Acts
    d. Nurse licensure
    e. Client Advocacy
    f. ANA Code of Ethics
15. Identify steps for making an ethical/moral decision
16. Discuss how professional organizations impact upon the nursing student role.
17. Identify the components of the Nurse Practice Act for the State of Texas.
18. Differentiate between dependent and independent nursing functions.
19. Identify the roles/responsibilities of ACC-ADN nursing students in regard to:
    a. Clinical practice/performance expectations
    b. Malpractice
    c. Consent forms
    d. Incident forms
    e. Witnessing legal documents
    f. Discharge against medical advice
    g. Defamation of character
    h. Invasion of privacy
20. Identify ways to avoid malpractice litigation
21. Explain the effective use of guidelines for recording or charting:
    a. Legal guidelines
    b. JCAH guidelines
    c. Institutional guidelines
22. Identify application of ethical/legal aspects of nursing to the clinical practice areas.
23. Discuss the following ADN roles and functions as identified by the National League for Nursing:
    a. Provider of Care
    b. Communicator
    c. Patient Teacher
    d. Manager of patient care
    e. Member of the profession

D. LEARNING RESOURCES:

ESSENTIAL:

1. ANA Code for Nurses Austin Community College Associate Degree Nursing Program Student Handbook
2. Brunner, L.S. and Suddarth, D.S. (1984) Textbook of Medical-Surgical Nursing (pp. 3-4, 9-12) Philadelphia: J.B.Lippincott Co.
3. Cushing, M. (1982) A Matter of Judgement American Journal of Nursing 82 (6), pp. 990-992
4. Fiesta, J. (1983) Breach of Duty: How to Recognize Before it Happens Nursing Life 3 (5), pp. 19-22
5. Kohnke, M.F. (1978) The Nurse's Responsibility to the Consumer American Journal of Nursing (3), pp. 440-442.
6. Nurse Reference Library: (1985) Practices pp. 1-45, 75-107, 113-182, 245-283 St. Louis: C.V. Mosby Co.
7. HANDOUT: Texas Nurse Practice Act
8. ATTACHMENT: NLN Definitions of Roles and Functions

E. SUPPLEMENTAL:

1. Grane, N. (1983) How to Reduce Your Risk of a Lawsuit Nursing Life, 3 (1), pp. 17.
2. Markowitz, L.A. (1982) How Your State Board Works for You Nursing Life 2 (3) pp. 25-31
3. Merryman, P.V. (1985) The incident Report.. If in Doubt, Fill it Out Nursing, 15 (5) pp. 57
4. Maysken, J.L. (1984) No Easy Choice: Resolving Everyday Ethical Dillemas Nursing Life 4 (4) pp. 29-32.
5. Thompson, J.E. and Thompson, H.O. (1984) Ethical Decision Making is an Integral Part of Nursing AORN, 39 (2) pp. 157-160
6. Perry, A.G. and Potter, P.A. (1986) Clinical Nursing Skills and Techniques: Basic, Intermediate, and Advanced (pp. 32, 34-35, 327-346) St. Louis: C.V. Mosby Co.
7. Potter, P.A. and Perry, A.G. (1987) Basic Nursing Theory and Practice (pp. 3-17, 23, 67-86, 89-99, 132-134) St. Louis: C.V. Mosby Co.

F. LEARNING ACTIVITIES:

1. Prior to class, read the learning resources
2. Participate in lecture/discussion
3. Complete Clinical Focus

G. PRE-TEST AND POST-TEST:

Read each question carefully and select the best answer:

1. Which association is INCORRECT?
   a. Private Insurance- Blue Cross/Blue Shield
   b. Philanthropy- Medicaid
   c. HMO- Kaiser/Permanente
   d. Personal payment- Consumer

2. Which statement about Medicare is correct?
   a. Benefits are limited to people over the age of 65
   b. Originally designed to provide health services to the poor.
   c. Consumer is restricted to providers and facilities under governmental contract.
   d. Program is financed by Social Security taxes, general tax revenues, insurance premiums and co-payment made by beneficiaries.

3. If a nurse discovers that a physician has ordered four times the normal dosage of a medication for a person in their care, they should:
   a. Administer the medication as ordered
   b. Give the person a "normal" dosage of the medication.
   c. Ask another nurse to give the medication
   d. Question the order and refuse to give the medication

4. Under the Good Samaritan Law, a nurse:
   a. Is legally obligated to provide aid to a person in distress.
   b. Has complete immunity for damages that might occur as a result of voluntary emergency aid.
   c. Can be held legally accountable for acts of gross negligence or more serious misconduct.
   d. Can render emergency care only at motor vehicle accidents.

5. A nurse administers an intramuscular injection against the will of a person who is oriented. The nurse's action constitutes:
   a. Assault
   b. Battery
   c. Invasion of privacy
   d. Negligence

6. All of the following statements about the American Hospital Association's "Patient's Bill of Rights" are true, EXCEPT:

   a. It guarantees quality care to all individuals.
   b. It can be used as a standard against which to judge health care.
   c. It establishes the legal right of health care consumers.
   d. It outlines the basic right of health care consumers.

ANSWERS: 1.B, 2.A, 3.D, 4.A, 5.B, 6.A

Assumptions Basic to the Scope of Practice of the Associate Degree Nurse on Entry to Practice

The practice for graduates of associate degree nursing programs:

is directed toward clients who need information or support to maintain health.

is directed toward clients who are in need of medical diagnostic evaluation and/or are experiencing acute or chronic illness.

is directed toward clients' responses to common, well-defined health problems.

includes the formulation of a nursing diagnosis.

consists of nursing interventions selected from established nursing protocols where probable outcomes are predictable.

is concerned with individual clients and is given with consideration of the person's relationships within a family, group, and community.

includes the safe performance of nursing skills that require cognitive, psychomotor, and affective capabilities.

may be in any structured care setting but primarily occurs within acute and extended-care facilities.

is guided directly or indirectly by a more experienced registered nurse.

includes the direction of peers or other workers in nursing in selected aspects of care within the scope of practice of associate degree nursing.

involves an understanding of the roles and responsibilities of self and other workers within the employment setting.

Roles of Practice of the Associate Degree Nurse on Entry into Practice

Five interrelated roles have been defined for graduates of the associate degree nursing program based upon the above assumptions underlying the scope of practice. These roles are: provider of care, client teacher, communicator, manager of client care, and member within the profession of nursing. In each of these roles, decisions and practice are determined on the basis of knowledge and skills, the nursing process, and established protocols of the setting.

Competencies of the Associate Degree Nurse on Entry into Practice

ROLE AS A PROVIDER OF CARE

As a provider of nursing care, the associate degree nursing graduate uses the nursing process to formulate, and maintain individualized nursing care plans by:

Assessing

Collects and contributes to a data base (physiological, emotional, sociological, cultural, psychological, and spiritual needs) from available resources (e.g., client, family, medical records, and other health team members).

Identifies and documents changes in health status which interfere with the client's ability to meet basic needs (e.g., oxygen, nutrition, elimination, activity, safety, rest and sleep, and psychosocial well-being).

Establishes a nursing diagnosis based on client needs.

Planning

Develops individualized nursing care plans based upon the nursing diagnosis and plans intervention that follows established nursing protocols.

Identifies needs and establishes priorities for care with recognition of client's level of development and needs, and with consideration of client's relationship within a family, group, and community.

Participates with clients, families, significant others, and members of the nursing team to establish long and short-range client goals.

Identifies criteria for evaluation of individualized nursing care plans.

Implementing

Carries out individualized plans of care according to priority of needs and established nursing protocols.

Participates in the prescribed medical regime by preparing, assisting, and providing follow-up care to clients undergoing diagnostic and/or therapeutic procedures.

Uses nursing knowledge and skills and protocols to assure an environment conducive to optimum restoration and maintenance of the client's normal abilities to meet basic needs.

> Maintains and promotes respiratory function (e.g., oxygen, therapy, positioning, etc.).
>
> Maintains and promotes nutritional status (e.g., dietary regimes, supplemental therapy, intravenous infusions, etc.).
>
> Maintains and promotes elimination (e.g., bowel and bladder regimes, forcing fluids, enemas, etc.).
>
> Maintains and promotes a balance of activity, rest, and sleep (e.g., planned activities of daily living, environmental adjustment, exercises, sensory stimuli, assistive devices, etc.).
>
> Maintains an environment which supports physiological functioning, comfort, and relief of pain.

Maintains and promotes all aspects of hygiene.

Maintains and promotes physical safety (e.g., implementation of medical and surgical aseptic techniques,etc.).

Maintains and promotes psychological safety through consideration of each individual's worth and dignity and applies nursing measures which assist in reducing common developmental and situational stress.

Measures basic physiological functioning and reports significant findings (e.g., vital signs, fluid intake and output).

Administers prescribed medications safely.

Intervenes in situations where:

Basic life support systems are threatened (e.g., cardiopulmonary resuscitation, obstructive airway maneuver).

Untoward physiological or psychological reactions are probable.

Changes in normal behavior patterns have occured.

Participates in established institutional emergency plans.

Evaluating

Uses established criteria for evaluation of individualized nursing care.

Participates with clients, families, significant others, and members of the nursing team in the evaluation of established long and short-range client goals.

Identifies alternate methods of meeting client's needs, modifies plans of care as necessary, and documents changes.

ROLE AS A COMMUNICATOR

As a communicator, the associate degree nursing graduate:

Assesses verbal and non-verbal communication of clients, families and significant others based upon knowledge and techniques of interpersonal communication.

Uses lines of authority and communication within the work setting.

Uses communication skills as a method of data collection, nursing intervention, and evaluation of care.

Communicates and records assessments, nursing care plans, interventions, and evaluations accurately and promptly.

Establishes and maintains effective communication with clients, families, significant others, and health team members.

Communicates client's needs through the appropriate use of referrals.

Evaluates effectiveness of one's own communication with clients, colleagues, and others.

ROLE AS A CLIENT TEACHER

As a teacher of clients who need information or support to maintain health, the associate degree nursing graduate:

Assesses situations in which clients need information or support to maintain health.

Develops short-range teaching plans based upon long and short-range goals for individual clients.

Implements teaching plans that are specific to the client's level of development and knowledge.

Supports and reinforces the teaching plans of other health professionals.

Evaluates the effectiveness of client's learning.

ROLE AS A MANAGER OF CLIENT CARE

As a manager of nursing care for a group of clients with common, well-defined health problems in structured settings, the associate degree nursing graduate:

Assesses and sets nursing care priorities.

With guidance, provides client care utilizing resources and other nursing personnel commensurate with their educational preparation and experience.

Seeks guidance to assist other nursing personnel to develop skills in giving nursing care.

ROLE AS A MEMBER WITHIN THE PROFESSION OF NURSING

As a member within the profession of nursing, the associate degree nursing graduate:

Is accountable for his or her nursing practice.

Practices within the profession's ethical and legal framework.

Assumes responsibility for self-development and uses resources for continued learning.

Consults with a more experienced registered nurse when client's problems are not within the scope of practice.

Participates within a structured role in research (e.g., data collection).

Works within the policies of the employee or employing institution.

Recognizes policies and nursing protocols that may impede client care and works within the organizational framework to initiate change.

SUBMODULE II

OVERVIEW OF THE AUSTIN COMMUNITY COLLEGE ASSOCIATE DEGREE NURSING PROGRAM.

A. INTRODUCTION:

This submodule examines the design of the program of learning of the ACC-ADN department. The foundation for the program (curriculum), is the philosophy and conceptual framework developed by the ACC-ADN faculty. The concepts and terms introduced in this class will provide framework and continuity for all succeeding learning experiences within the ACC-ADN program.

B. TERMINOLOGY LIST

1. man
2. PERSON
3. stressor
4. stress
5. health-illness continuum
6. internal environment
7. external environment
8. General Adaptation Syndrome (GAS)
9. Local Adaptation Syndrome (LAS)
10. homeostasis
11. system
12. coping mechanisms:
    a. ego-defense mechanisms
    b. mental mechanisms
    c. defense mechanisms
13. eustress
14. distress
15. hypertrophy
16. atrophy
17. hyperplasia
18. metaplasia
19. injury
20. physiologic stressors

21. psychologic stressors
22. hypoxia
23. ischemia
24. nutritional imbalance
25. inflammatory response
26. task oriented behaviors
    a. attack
    b. withdrawal
    c. compromise

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components of the ACC-ADN program philosophy.
2. Explain the concept of man when viewed as a composite of mind, body and spirit:
   a. define mind, body and spirit
   b. identify the interrelationships of mind, body, and spirit.
3. Define the six (6) basic health needs of man (PERSON)
4. Discuss the interactive nature of these needs(PERSON)
5. Explain the concept of homeostasis
6. Discuss the major physiologic regulation of homeostasis.
7. Explain the functions of the biologic defense mechanisms in the maintenance of homeostasis.
8. Explain the use of mental mechanisms and support systems in the maintenance of homeostasis.
9. Explain Selye's Theory of stress and stressors:
   a. identify factors affecting the effects of stressors on individuals:
      (1) characteristics of the patient
)2) characteristics of the stressor
10. Describe the relationships among man, PERSON and stressors.
11. Explain the concept of health-illness continuum
12. Identify both content and process threads of the ACC-ADN program.
13. Describe health promotion and illness prevention activities.
14. Identify risk factors for the development of conditions of illness.
15. Explain the variables which influence health beliefs and health practices.
16. Discuss the concept of illness behavior
17. Explain the stages of illness behavior
18. Discuss the impact of illness on the patient and family/significant others.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, L.S. and Suddarth, D.S. (1984)
   Textbook of Medical-Surgical Nursing (pp.109-130)
   Philadelphia: J.B. Lippincott Co.

2. Johnson, B.S. (1986) Adaptation and Growth (pp.6-7)
   Philadelphia: J.B. Lippincott Co.

3. Austin Community College Associate Degree Nursing
   Program Philosophy, Conceptual Framework and Definitions
   Austin Community College Associate Degree Nursing
   Program Student Handbook (1987-1988)

4. ATTACHMENTS:
   a. Sympathetic Responses to Stress
   b. Biological Defense Mechanisms

E. SUPPLEMENTAL:

1. Potter, P.A. and Perry, A.G. (1987) Basic Nursing
   (pp. 29-65) St. Louis: C.V. Mosby Co.

F. LEARNING ACTIVITIES:

1. Prior to class read materials listed under
   Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

G. PRE-TEST AND POST-TEST:

Read each question carefully and select the best response.

1. Unmet human needs result in:

   a. Individual problems
   b. Disequilibrium
   c. Illness
   d. All the above

2. Stressors are:

   a. Agents or factors that pose a real threat to the individual.
   b. External factors that challenge the adaptive capabilities of a person.
   c. Physiologic and psychologic responses to stress
   d. Forces that place a strain upon the person, resulting in a stress response.

3. The nurse needs to be aware that an individual's response to stress is influenced by:

   a. Perception of the stressor
   b. Number of stressors to be coped with
   c. Past experience with a comparable stressor
   d. All the above

4. The three stages of the General Adaptation Syndrome are:

   a. Alarm, resistance, and exhaustion
   b. Alarm, resistance, and fatigue
   c. Alarm, reaction, and exhaustion
   d. Alarm, reaction, and fatigue

5. Which of the following general statements about adaptation is incorrect?

   a. Adaptability varies from individual to individual
   b. Adaptive responses are more limited in number and scope at the psychologic level.
   c. All adaptive mechanisms attempt to maintain homeostasis.
   d. Adaptive responses may be inadequate, excessive, or inappropriate.

6. The two major homeostatic regulators of the body are:

   a. Autonomic Nervous System and Exocrine System
   b. Autonomic Nervous System and Endocrine System
   c. Autonomic Nervous System and Neuroendocrine System
   d. Voluntary Nervous System and Endocrine System

7. Adaptation to a stressor is positively correlated to:

   a. Previous coping mechanisms
   b. The duration of the stressor
   c. The severity of the stressor
   d. All the above

8. An example of a negative feedback process would be increased:

   a. Aldosterone secretion in burn traumas
   b. Cardiac output in hemorrhage, resulting in increased blood loss.
   c. Secretion of antidiuretic hormone (ADH) in congestive heart failure, causing increased fluid retention.
   d. Secretion of thyroid- stimulating hormone (TSH), which stops when circulating thyroxin levels reach normal.

THE SYMPATHETIC RESPONSES TO STRESS

1. Pupils of the eyes dilate.
2. Heart rate increases (positive chronotrophic effect), and ventricular contractility increases (positive inotrophic effect).
3. Coronary arteries dilate; blood vessels to skin and mucosa constrict; blood vessels to skeletal muscle dilate; blood vessels to brain constrict slightly; blood vessels to lungs dilate; blood vessels to viscera constrict.
4. Bronchodilation of the lungs; increased respiratory rate.
5. Decreased motility and tone of the stomach and intestines.
6. Contraction of urinary bladder sphincter.
7. Piloerection of the skin, and increased sweat production.
8. Contraction of the spleen.
9. Stimulation of adrenal glands.
10. Glycogenolysis in liver; lipolysis in liver.
11. Salivary gland activity increases.
12. Decreased glomerular filtration in the kidney; kidneys secrete renin, which is transformed to angiotensin I, and later into angiotensin II; angiotensin II promotes selective vasocontriction, and stimulates the adrenal cortex to release aldosterone; aldosterone stimulates the kidney to retain water and sodium..
13. Decreased insulin secretion in pancreas.

RESULTS:

1. Dilated eyes allow more light to strike retina; slight change in lens improves far vision.
2. Increased cardiac output.
3. Shunting of blood to vital organs and away from nonvital organs.
4. Bronchodilation facilitates air passage; increased minute volume.
5. All body functions inessential to dealing with stress are inhibited.
6. Inessential function; conservation of body water.
7. Increased sweating facilitates body cooling.
8. Spleen contraction releases sequestered blood cells into blood volume.
9. Adrenal medulla secrete epinephrine (80% of volume) and norepinephrine (20% of volume); these catecholamines mediate and maintain the sympathetic response.
10. Increase in circulating glucose and free fatty acids as energy sources.
11. Increased salivation assists in humidification of orally inspired air.
12. Decreased urine output; conservation of body water; support of blood pressure.
13. Decreased insulin secretion to maintain blood sugar at high level.
14. Bottom line: maintenance of sufficient blood pressure to ensure adequate vital organ perfusion.

BIOLOGIC DEFENSE MECHANISMS

Nonspecific Mechanisms — **Specific Mechanisms**

EXTERNAL

Nonspecific Mechanisms

- A. Mechanical exclusion
  - 1. Physical structures
    - a. Skin
    - b. Mucous membranes
    - c. Specialized structures
  - 2. Physical actions
- B. Biochemical factors
  - 1. Body secretions
  - 2. pH
  - 3. Lysozyme
- C. Microbial antagonism

Specific Mechanisms

- A. Immunoglobulin A
  - 1. In mucosal secretions
  - 2. In mucosal cells

INTERNAL

Nonspecific Mechanisms

- D. Reticuloendothelial system
- E. Blood
  - 1. Cellular components
  - 2. Fluid components
    - a. Opsonins
    - b. Complement
    - c. Properdin
    - d. C-reactive protein
  - 3. Phagocytosis
- F. Inflammatory response
- G. Interferon

Specific Mechanisms

- B. Antigen-processing by macrophage
- C. Primary immune response
  - 1. Humoral immune response
    - a. Synthesis of circulating antibodies by B cells
    - b. Interaction of antibodies with antigen
  - 2. Cell-mediated immune response
    - a. Sensitization of T cells
    - b. Lymphokines
  - 3. Combined immune response
- D. Secondary immune response

TAKEN FROM: Phipps, Wilma, Barbara Long, and Nancy Woods. Medical-Surgical Nursing: Concepts and Clinical Practice. St. Louis: C. V. Mosby Company, 1979. Page 170.

SUBMODULE III

OVERVIEW OF THE NURSING PROCESS

A. INTRODUCTION:

The nursing process is a method of problem solving utilized by the nurses to provide safe, individualized nursing care. The focus of the discussion is the terminology related to nursing process utilized by the Austin Community College Associate Degree Nursing Program and the examination of the components of the process. The use and documentation of the nursing process in the clinical setting will also be discussed.

B. TERMINOLOGY LIST

1. nursing process
2. data
3. sign
4. symptom
5. nursing diagnosis
6. assessment
7. planning
8. intervention
9. evaluation
10. subjective data
11. objective data
12. expected outcome/goal/objective
13. nursing care plan
14. long term goals
15. short term goals
16. NANDA
17. supportive data
18. rationale

C. LEARNING OBJECTIVES:

Upon completion of this submodule, the student should be able to:

ASSESSMENT:

1. Discuss the components of the assessment phase of the nursing process.
2. Explain the purpose of the assessment phase
3. Identify the sources of data collection
4. Discuss methods used for data collection:
    a. Observation
    b. Health history
    c. Physical assessment
        (1) inspection
        (2) palpation
        (3) percussion
        (4) ausculation
    d. Analysis of a symptom
    e. Diagnostic/evaluative tests (laboratory data)
5. Discuss factors which influence data collection
6. Identify the difference between a nursing assessment and a medical assessment.
7. Relate data collection to PERSON
8. Explain the purpose of a nursing diagnosis
9. Identify the difference between a nursing diagnosis and a medical diagnosis.
10. Identify the components of a correctly stated nursing diagnosis.

PLANNING:

1. Explain the steps in the planning phase of the nursing process.
2. Describe the components of a correctly stated patient goal/objective/expected outcome.
3. Identify the relationship of a goal to the nursing diagnosis.
4. Explain the concepts of Locus of Control (Locus of Decision-Making).
5. Discuss the process of establishment of priorities
6. Describe the components of a correctly stated nursing intervention.
7. Discuss the factors involved in choosing nursing interventions.
8. Explain the relationship between nursing interventions and rationale.
9. Identify the three (3) general types of nursing interventions.
10. Explain the relationship of nursing interventions to the nursing diagnosis.
11. Describe the components of a nursing care plan:
    a. Student care plan
    b. Institutional care plan
12. Identify the types of care plans used in the hospital setting.

IMPLEMENTATION:

1. Explain the steps of the implementation phase of the nursing process.
2. Explain the purpose of the implementation phase
3. Explain the relationship of assessment to the implementation phase.

EVALUATION:

1. Explain the steps of the evaluation phase of the nursing process.
2. Explain the purpose of the evaluation phase
3. Explain the cyclic nature of the nursing process

NURSING PROCESS IN THE CLINICAL SETTING:

1. Discuss the relationhsip of the nursing process to:

    a. Individualized nursing care
    b. Continuity of care
    c. Accountability of nursing
    d. Recording and reporting
2. Differentiate between the advantages and disadvantages of the following three charting systems:
    a. Source oriented
    b. Problem oriented
    c. Computer assisted
3. Discuss the relationship between the nursing assessment data base, nursing diagnosis list, and P.O.M.R.
4. Apply the nursing process to a patient with the hazards of immobility.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, L.S. and Suddarth, D.S. (1984) Textbook of Medical-Surgical Nursing (pp. 18-28, 53-92, 94-98) Philadelphia: J.B.Lippincott Co.

2. Olsen,E. (1967 April) "The Hazards of Immobility" AJN pp. 781-797

3. ATTACHMENTS: Nursing Process Analysis of a Symptom and Standardized Nursing Problem Statements

4. Nurse Reference Library (1985) Practices pp. 217-239 St. Louis: C.V. Mosby Co.

E. SUPPLEMENTAL:

1. Potter, P.A. and Perry, A.G. (1987) Basic Nursing (pp 101-124) St. Louis: C.V. Mosby Co.

2. Phipps, W.J. and Long, B.C. (1987) Medical-Surgcal Nursing (pp. 61-72) St. Louis: C.V. Mosby Co.

F. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under learning resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

G. PRE-TEST and POST-TEST:

Read each question carefully and select the best answer.

1. The assessment phase of the nursing process focuses on:
    a. Psychosocial needs of the individual
    b. Physiological needs of the individual
    c. Cultural needs of the individual
    d. Holistic needs of the individual

2. The first step in the assessment phase is:

    a. Identification of an existing problem
    b. Formulation of nursing diagnostic statements
    c. Collection of pertinent individual data
    d. Statement of a hypothesis

3. In which stage of the nursing process does the nurse set priorities of care?

    a. Assessment
    b. Planning
    c. Intervention
    d. Evaluation

4. The written nursing care plan should be completed prior to which phase of the nursing process?

    a. Analysis
    b. Planning
    c. Implementation
    d. Evaluation

5. The nursing plan of care if put into action in which phase of the nursing process?

    a. Intervention
    b. Implementation
    c. Planning
    d. Evaluation

6. Which step of the nursing process compares the person's behavioral outcomes to standard or expected outcomes?

    a. Assessment
    b. Nursing diagnosis
    c. Planning
    d. Evaluation

ANSWERS: 1.D, 2.C, 3.B, 4.C, 5.B, 6.D

NURSING PROCESS

Locus of Decision Making Regarding Health

1. Nurse-Centered Decision Making: The locus of decision making is centered in the nurse when patients are unable to make decisions regarding their physical and/or psychological status.

   Example: comatose patient

2. Patient-Nurse Shared Decision Making: The locus of decision making is shared by the nurse and the patient when the latter is able to exercise partial control in maintaining their health needs and to perform selected activities of daily living.

   Example: A first-day post-surgery patient who needs to ambulate

3. Patient-Centered Decision Making: The locus of decision making is centered in patients when they are able to maintain their health needs independently but require education, guidance or environmental modification.

   Example: A new mother who plans to breast feed her baby

Taken from NCLEX Test Plan, McGraw-Hill, Inc., 1984.

ANALYSIS OF A SYMPTOM

1. Onset
   - a. Date of onset
   - b. Manner of onset (gradual or sudden)
   - c. Precipating and predisposing factors related to onset (emotional disturbance, physical exertion, fatigue, bodily function, pregnancy, environment, injury, infection, toxins and allergens, therapeutic agents, and so on).
2. Characteristics
   - a. Character (quality, quantity, consistency, or other)
   - b. Location and radiation (of pain)
   - c. Intensity or severity
   - d. Timing (continuous or intermittent, duration of each, temporal relationship to other events)
   - e. Aggravating and relieving factors
   - f. Associated symptoms
3. Course since onset
   - a. Incidence
     1. single acute attack
     2. recurrent acute attacks
     3. daily occurrences
     4. periodic occurrences
     5. continuous chronic episode
   - b. Progress (better, worse, unchanged)
   - c. Effect of therapy

FROM: Physical Diagnosis by Elliot Hochstein and A. L. Rubin, Copyright 1964 by McGraw-Hill, Inc. p. 6. Used with permission of McGraw-Hill Book Company

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STANDARDIZED NURSING PROBLEM STATEMENTS

P NEED

anxiety
coping, ineffective individual
fear
grieving anticipatory
grieving dysfunctional
powerlessness
rape trauma syndrome
self-concept, distrubance in body image;
   self-esteem role performance; personal identify
social isolation
spiritual distress (distress of the human spirit)
violence potential for: self-directed or directed at others
coping, family: potential for growth
coping, ineffective family: compromised
coping, ineffective family: disabling
family process, alteration in
parenting, alteration in: actual or potential
communication, impaired verbal
sensory-perceptual alteration: visual, auditory, Kinesthetic,
   gustatory, tactile, olfactory
thought processes, alteration in
sexual dysfunction
health maintenance, alteration in
home maintenance management, impaired
knowledge deficit (specify)
non-compliance (specify)
altered sexuality patterns
altered growth and development
family process, alteration in
hopelessness
impaired adjustment
impaired social interaction
parenting, alteration in: (actual, potential)
post trauma response

E NEED

bowel elimination, alteration in: constipation
bowel elimination, alteration in: diarrhea
bowel elimination, alteration in: incontinence
urinary elimination, alteration in patterns
functional in continence
reflex incontinence
stress incontinence
total incontinence
urge incontinence
urinary retention

R•NEED

altered comfort: chronic pain
activity intolerance
activity intolerance, potential
diversional activity, deficit
sleep pattern disturbance
comfort, alteration in: pain
self-care deficit: feeding: bathing/hygiene:
    dressing/grooming: toileting
hypothermia
hyperthermia
ineffective thermoregulation
potential alteration in body temperature

S NEED

injury, potential for: poisoning, suffocation, trauma
mobility, impaired physical
skin integrity, impairment of: actual
skin integrity, impairment of: potential
impaired tissue integrity
potential for infection

O NEED

cardiac output, alteration in: decreased
tissue perfusion, alteration in cardiopulmonary,
    cerebral, renal, gastrointestinal, peripheral
airway clearance, ineffective
breathing pattern, ineffective
gas exchange, impaired
fluid volume, alteration in: excess
fluid volume, deficit: actual
fluid volume, deficit: potential

N NEED

nutrition, alteration in: less than body requirements
nutrition, alteration in: more than body requirements
nutrition, alteration in: potential for more than body requirements
oral mucous membranes, alteration in
impaired swallowing

MODULE II

THE PSYCHOSOCIAL NEED

INTRODUCTION:

This module examines the Psychosocial Need as defined by the Austin Community College Associate Degree Program: "the need for the development of the individual in relation to his perceived or prescribed roles". This module is divided into the following six submodules:

1. Overview of the Need
2. The Nursing Process as it Applies to the Patient Experiencing Stressors Affecting the Ability to Maintain the Psychosocial Need.
3. The Concept of Mental Health
4. The Nursing Process as it Applies to the Patient Experiencing Stressors of Loss/Grief.
5. Nursing Process as it Applies to the Patient who is Experiencing Stressors of Dying/Death.
6. The Nursing Process as it Applies to the Patient Experiencing Stressors of Psychological Dysfunction.

MODULE OBJECTIVES:

Upon completion of this module, the student should be able to:

1. Explain patients' psychological needs related to developmental concepts and stressors.
2. Apply the nursing process to aid an adult patient experiencing psychosocial stressors.
3. Utilize the communication process to facilitate effective interaction with patients experiencing psychosocial stressors.
4. Apply teaching-learning principles to provide adult patients with strategies to maintain their psychosocial needs.

SUBMODULE II

OVERVIEW OF THE NEED

A. INTRODUCTION:

This submodule examines the components of the Psychosocial Need. The focus is the acquisition of knowledge about the need. This knowledge provides the necessary basis for understanding how individuals normally maintain the Psychosocial Need.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify psychosocial needs related to psychosocial development in childhood and adolescence.
    a. Erikson
    b. Other
2. Identify psychosocial needs related to developmental concepts of the adult life cycle.
    a. Erickson and others
    b. Concept of sexuality
    c. Concept of body image
3. Identify psychosocial needs related to the need for group identification.
    a. discuss cultural diversity related to the P Need.
    b. discuss society related to the P Need
    c. Explain the need for privacy, space, and personal belongings.
4. Identify the need for social support systems
    a. sources of support
    b. functions of support systems
5. Identify the need for religion, spiritual beliefs, and spirituality and their effect on the P Need.
6. Identify the need for health education
    a. identification of teaching/learning principles
    b. use of the nursing process in teaching
7. Discuss standards, norms, and criteria which indicate an individual is maintaining the Psychosocial Need.
    a. concept of mental health
    b. other
8. Explain the relationship of the P Need to PERSON

D. LEARNING RESOURCES:

1. ESSENTIAL: Johnson, B.S. (1986) Psychiatric-Mental Health Nursing: Adaptation and Growth (pp 25-98) Philadelphia: J.B. Lippincott Co.

2. Shubin, S. (1980 June) Nursing Patients from Different Cultures Nursing '80 pp. 78-81

3. Brunner, L.S. and Suddarth, D.S. (1984) Textbook of Medical-Surgical Nursing (pp. 30-37, 123-124, 179-200, 205-212 Philadelphia: J.B. Lippincott Co.

4. ATTACHMENTS:
   - a. Basic mental health concepts
   - b. Principles related to body image
   - c. Principles related to sexuality
   - d. Principles related to teaching/learning

SUPPLEMENTAL:

1. Potter, P.A. and Perry, A.G. (1987) Basic Nursing Theory and Practice (pp 271-375) St. Louis: C.V.Mosby Co.

2. Any Psychiatric Nursing Text

E. LEARNING ACTIVITIES:

1. Prior to class read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST: Read each question and select the best answer:

1. In Erickson's theory of psychosocial development, trust is to mistrust as industry is to:
   - a. generativity
   - b. inferiority
   - c. isolation
   - d. stagnation
2. As a nurse, you are aware that the process of growth and development:
   - a. occurs in steps of increasing complexity
   - b. progresses in an orderly sequence
   - c. is influenced by both heredity and environment
   - d. all the above
3. The teaching/learning process allows the nurse to:
   - a. assist individuals to learn what they need to know in order to maintain or regain health.
   - b. help individuals change unhealthy patterns of behavior.
   - c. assists individuals to acquire new skills needed for effective self-care.
   - d. all the above

4. Questions used to assess a person's psychosocial status:
    a. are the same for every individual and situations
    b. are largely determined by the person's reason for seeking health care.
    c. are directed entirely at those parts of a person's life that are affected by other people.
    d. always contain sexual information
5. Which of the following statements about behavior is false?
    a. Behavior is the way in which a person responds to a stimulus.
    b. Behavior is all activities of an organism that can be observed by others.
    c. Behavior can be displayed both verbally and nonverbally.
    d. Behavior is usually meaningless and related to childhood experience.
6. Body image concept is formed during the:
    a. infancy stage
    b. toddler stage
    c. pre-school stage
    d. school age stage

ANSWERS: 1. B, 2. D, 3. D, 4. B, 5. D, 6. B

BASIC MENTAL HEALTH CONCEPTS

1. Human beings are complex systems of interrelated parts, the whole of which is greater than the sum of the parts. This view represents a holistic perspective, a stance that acknowledges the interdependence and interrelatedness of the parts to each other, to the person, and to the psychosocial environment.

2. Each individual possesses a potential for personal emotional growth.

3. Each individual is unique and has inherent value.

4. Human beings are sufficiently similar in that there is always a basis for developing mutual understanding and communication.

5. All behavior has meaning. It is designed to meet a need or to communicate a message.

6. Behavior is a learned response based on the individual's perceptions of past events. An individual's present behavior represents the best possible adaptation the individual is capable of making at the time.

7. Behavior is learned primarily as a result of the individual's interaction with significant persons in the environment.

Taken From: Taylor, Cecelia Monat. Mereness' Essentials of Psychiatric Nursing. pp. 32-36.

PRINCIPLES RELATED TO BODY IMAGE

1. Each individual has a unique body image.
2. Body image is a dynamic process related to the individual's view of self and to his or her interactions with the internal and external environments.
3. Alterations in body image can result from actual or perceived changes.
4. Alterations in body image result in changes in behavioral responses and interactions.
5. Treating the individual with dignity and respect enhances self-esteem.
6. Personal care patterns are learned.
7. Individuals vary in their style and approach to personal care.
8. Individuals vary in their need for personal care.

Taken From: Brill, Esther Levine and Dawn Kilts. Foundations for Nursing. New York: Appleton-Century-Crofts, 1980. p. 605.

PRINCIPLES RELATED TO SEXUALITY

1. Sexuality is a basic human need.
2. Sexuality is a component of all aspects of human life.
3. Sexual identity is related to physical, psychologic, social, cultural, and religious influences.
4. Sexuality needs and sexual behavior are manifested throughout the entire growth and development process.
5. Patterns of expected sexuality fall within a wide range of behaviors.
6. Many disease processes and medications interfere with expression of sexuality and sexual behavior.
7. Environmental changes such as hospitalization can interfere with an individual's usual expression of sexuality and sexual behavior.

Taken From: Brill, Esther Levine and Dawn Kilts. Foundations for Nursing. New York: Appleton-Century-Crofts, 1980. p. 645.

TEACHING/LEARNING PRINCIPLES

1. The patient must be ready to learn, both physically and emotionally.
2. The patient will learn more if he feels a genuine desire to learn.
3. Patients learn best in a warm, accepting atmosphere.
4. Learning is facilitated in a pleasant quiet environment free from distractions.
5. Learning is easier when it is presented in a form that has meaning for the learner.
6. The patient will be more successful in remembering and assimilating well-organized material which proceeds from simple to complex.
7. Learning is strengthened and reinforced when positive patient behaviors are rewarded.
8. Patients learn more when they are encouraged to actively participate in their health education program.
9. Patients retain information and skills longer when they are allowed to immediately put information and skills into practice.
10. Patients may occasionally reach learning plateaus.

SUBMODULE II

The Nursing Process as it Applies to the Patient Experiencing Stressors Affecting the Ability to Maintain the Psychosocial Need.

A. INTRODUCTION:

This subunit discusses selected knowledge, skills, and attitudes necessary to assist the patient to maintain the Psychosocial Need. The nursing process provides the framework.

B. TERMINOLOGY LIST:

Define the following by definitions and examples:

DEFENSE MECHANISMS

Compensation

Displacement (substitution)

Denial

Fixation

Suppression

Sublimation

Reaction formation (over-compensation)

Identification

Introjection

Undoing

Isolation

Rationalization

Repression

Regression

Projection

Symbolization and condensation

Conversion

DIFFERENTIATE BETWEEN THE FOLLOWING

Defense Mechanisms

Coping Mechanisms

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors affecting the ability to maintain the Psychosocial Need based upon:
    a. identification of sources of psychosocial stressors which affect the patient's sense of trust and integrity.
        (1) the hospital environment
        (2) identification of types of crises patients experience.
            (a) loss
            (b) threat
            (c) challenge
        (3) life events and stress
        (4) other
    b. recognition of signs and symptoms patients may manifest when experiencing these stressors.
        (1) identification of the impact of stressors on PERSON.
        (2) identification of stages of crises
        (3) explain the concept of anxiety
            (a) identify levels of anxiety
            (b) identify sources of anxiety
            (c) discuss development of anxiety
        (4) identify defense mechanism for the reduction of anxiety.
    c. discussion of the common therapeutic management used to assist the patient to maintain the P Need.
        (1) identify sources of referral for psychosocail needs.
        (2) identify types of approaches to meet P Need
        (3) identify drug classifications for P Need
            (a) actions of antianxiety agents
            (b) actions of antidepressant agents
    d. explanation of nursing diagnosis related to the P Need.
        (1) common nursing diagnoses for hospitalized patients.
        (2) establishing nursing goals
2. Identify the components of a nursing care plan to assist the patient experiencing stressors affecting the ability to maintain the Psychosocial Need.
    a. the nurse-patient relationship
        (1) what the nurse brings to the relationship
            (a) values clarification
        (2) establishing a trusting relationship
        (3) nature of communication
        (4) interviewing patients
            (a) purpose of interviewing
            (b) principles of interviewing
            (c) components of biographical data
        (5) observation

b. identify the ethical/legal considerations in terms of:
    (1) confidentiality
    (2) privileged communication
    (3) informed consent

c. discuss the nursing actions/interventions which assist the patient to maintain the Psychosocial Need.
    (1) define therapeutic communication
    (2) identification of methods which facilitate or hinder therapeutic communications.
    (3) discussion of the use of touch as a nursing action.
    (4) explanation of stressreduction techniques
        (a) coping strategies
        (b) security operations
    (5) identification of the use of teaching-learning principles in relationship to stressors.

3. Identify factors to consider in the evaluation of the P Need.

D. LEARNING RESOURCES:

1. ESSENTIAL:
Brunner, L.S. and Suddarth, D.S. (1984)
Textbook of Medical-Surgical Nursing
(pp. 30-38, 41-52, 120-132, 187-207)
Philadelphia: J.B. Lippincott Co.

2. English, M. (1983) Ordeal Nursing "83 (p.34)

3. Hoover, R.M. and Parnell, P.K. (1984 June)
An Inpatient Educational Group on Stress and Coping Journal of Psychosocial Nursing (pp. 17-23)

4. Nurse Reference Library (1987) Practices
(pp. 481-530) St. Louis: C.V. Mosby Co.

5. Johnson, B.S. (1986) Psychiatric-- Mental Health Nursing: Adaptation and Growth (Ch. 3, 20, 31)
Philadelphia: J.B. Lippincott Co.

6. ATTACHMENTS:
    a. Principles Related to Communication
    b. Communication Skills
    c. Response Catagorization to Anxiety
    d. Principles that Promote a Therapeutic Relationship
    e. Elements Affecting the Nurse's Ability to be Therapeutic.
    f. Vocabulary List of Ethical/Legal Terms

OPTIONAL:

1. Miller, J.F. (1985 Jan) Inspiring Hope American Journal of Nursing pp. 23-25.

2. Richardson, J.I. and Berline-Nauman, D. (1984)
In the Face of Anger Nursing "84 pp. 66

3. **AUDIOVISUALS:**
    a. WY 88 1973 Communications (to be shown in learning lab)
        The Nurse
        The Hospitalized Person
        Techniques of Therapeutic Communications
        Blocks to Therapeutic Communications
        Interactions for Study
    b. WY 87 Touch
    c. T 722 Values Clarification
4. Any psychiatric nursing text

E. LEARNING ACTIVITIES:
1. Read and view materials listed under Learning Resources prior to class.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:
Read each question carefully and select the best answer:

1. Which of the following statements about the therapeutic nursing relationship is INCORRECT?

    a. the nurse is usually in the "power" position in the relationship.
    b. the needs of all participants in the relationship are equally important.
    c. the relationship is purposeful and goal directed.
    d. the relationship is time-limited; it will end when the goal has been reached.

2. When initiating a therapeutic relationship, the nurse should focus primarily on:

    a. clarification of the nursing role
    b. establishment of trust
    c. gathering assessment data
    d. identification of health care goals

3. To facilitate communication, the nurse should convey:

    a. accurate empathy
    b. authenticity
    c. unconditional positive regard
    d. all the above

4. A communication technique that involves restating a person's message in different words is:

    a. clarifying
    b. paraphrasing
    c. restatement
    d. summarizing

5. During conversation, the nurse tells the person, "I'm not sure I understand what you are trying to tell me about.." This is an example of which therapeutic communication technique?

   a. clarifying
   b. exploring
   c. focusing
   d. validating

SITUATION: The nurse has just informed Mr. Sleigh that his diagnostic tests have been canceled for the second day in a row. Mr. Sleigh clenches his fist at the nurse as she prepared to leave the room. His lips are pursed and his nostrils flaring. Questions 6 and 7 apply to this situation:

6. Mr. Sleigh's nonverbal behavior indicates:

   a. anger
   b. a concealed message
   c. fear
   d. depression

7. The nurse's best response to Mr. Sleigh at this time would be:

   a. "Everything is going to be allright Mr. Sleigh, you'll see.?
   b. "I don't know what you're so upset about."
   c. "You seem to be upset. Tell me about it."
   d. Silence

ANSWERS: 1. B, 2. B, 3. D, 4. B, 5. A, 6. A, 7.C

PRINCIPLES RELATED TO COMMUNICATION

1. Communication is a dynamic process.

2. Each individual's communication pattern is unique.

3. All behavior is a form of communication.

4. Communication is influenced by the individual's level of growth and development, culture, interaction style, cognitive abilities, level of anxiety, and state of health.

5. Language is the use of symbols to represent thoughts, ideas, and objects in one's internal and external environments.

6. Communication is enhanced when individual differences are recognized and incorporated into interactions.

7. Stereotypes, biases, and assumptions can hinder communication.

8. Honesty, trust, and recognition of individual differences facilitate communication.

9. Cognitive dissonance arises when an interaction creates tension.

[illegible] An increase in level of anxiety decreases perception.

11. Lower levels of anxiety are necessary for survival.

Taken From: Brill, Esther Levine and Dawn Kilts. Foundations for Nursing. New York: Appleton-Century-Crofts, 1980. p. 179.

5-4

COMMUNICATION SKILLS

Interpersonal Techniques

Therapeutic Techniques

	TECHNIQUE	EXAMPLE	COMMENTS
1.	Using Silence		Positive accepting silence often encourages patient to speak. Gives patient time to organize thoughts. Reduces pace of interview. Gives nurse opportunity to assess non-verbal aspects.
2.	Accepting	Yes. Uh hum. I follow what you said. Nodding.	Signifies nurse has heard and follows trend of thought; non-judgment.
3.	Giving recognition	Good morning, Mr. S. I noticed that you have combed your hair. You've laced a wallet.	Show recognition of the patient as a person, or an awareness of change.
4.	Offering self	I'll sit with you awhile. I'll stay here with you. I'm interested in your comfort.	Unconditional acceptance; nurse makes herself available; her presence, interest, and desire to understand.
5.	Giving broad openings	Is there something you'd like to talk about? What are you thinking about? Where would you like to begin?	Allows patient to take the initiative in introducing topic for discussion.
6.	Offering general leads	Go on. And then? Tell me about it.	Gives patient encouragement to continue. Leaves direction of discussion to patient.
7.	Placing the event in time or sequence	What seemed to lead up to? Was this before or after? When did this happen?	Clarifies relationship of events in time. Helps both nurse and patient see events more objectively and in perspective. May identify recurring patterns of difficulties and point out needs.
8.	Making observations	You appear tense. Are you uncomfortable when.. I notice you're biting your lips.	Verbalizing what is perceived, calls patient's attention to something he is unaware of. Offers patient something to which he can respond.

COMMUNICATION SKILLS (continued)

9.	Encouraging description of perceptions	Tell me when you are feeling anxious. What is happening? What does the voice seem to be saying?	Asking patient or verbalize what he perceives. To understand patient, nurse must see things as they seem to him. Provides basis for understanding.
10.	Encouraging comparison	Was this something like..? Have you had similar experiences?	Asking that similarities and differences be noted; may bring out recurring themes; also helps patient evaluate feelings about and influence of events.
11.	Restating	Pt: I can't sleep; I stay awake all night. Ns: You have difficulty sleeping.	Repeating the main idea expressed gives patient evidence their idea has been communicated effectively, encourages him to continue.
12.	Reflecting	Pt: Do you think I should tell the doctor? Ns: Do you think you should? Pt: My brother spends all my money, then has nerve to ask for more. Ns: This causes you to feel angry.	Directing back the questions, feelings and ideas to patient. Encourages patient to accept as part of himself his own ideas and feelings, and indicates his point of view is of value.
13.	Focusing	This point seems worth looking at more closely.	Concentrating on single point helps patient center thinking and to understand ideas.
14.	Exploring	Tell me more about that. Would you like to describe it more fully? What kind of work?	Delving further into a subject or idea, to explore more fully certain experiences, but nurse should not pry or probe.
15.	Giving information	My name is ___ Visiting hours are ___ My purpose in being here is ___	Makes available the facts the patient needs; helps build up trust as well as give knowledge. Defines role of nurse.
16.	Seeking clarification	I'm not sure that I follow. What would you say is the main point of what you said?	Seeking to make clear that which is vague or not meaningful. Helps patient clarify his own thinking.

COMMUNICATION SKILLS (continued)

17.	Presenting reality	I see no one else in the room. That sound was a car back-firing. Your mother is not here; I'm a nurse.	Offers for consideration that which is real; indicates an alternate line of thought for patient, but not trying to convince him he is wrong.
18.	Voicing doubt	Isn't that unusual? That's hard to believe. Really?	Expressing uncertainty as to reality of patient's perceptions. May encourage patient to reconsider and re-evaluate what has occurred. Nurse neither agrees nor disagrees.
19.	Seeking consensual validation	Tell me whether my understanding agrees with yours. Are you using that word to convey the idea that ___?	Searching for mutual understanding for accord in meaning of words. Should have essentially same meaning.
20.	Verbalizing the implied	Pt: I can't talk to anyone. It's a waste of time. Ns: Is it your feeling that no one understands? Pt: My wife pushes me around just like my mother did. Ns: Is it your impression that all women are domineering?	Voicing what patient has hinted or suggested. Putting into words what has been implied tends to make discussion less obscure, but nurse should not be blunt.
21.	Encouraging evaluation	What are your feelings in regard to ___? Does this contribute to your discomfort?	Asking patient the quality of his experiences and to consider people and events in the light of his own set of values, to evaluate ways things affect him. Discourages patient from adopting ideas and opinions of others.
22.	Attempting to translate into feelings	Pt: I'm dead. Ns: Are you suggesting that you feel lifeless? Pt: I'm way out at sea. Ns: It must be lonely. You feel deserted?	Seeking to verbalize the feelings that are being expressed indirectly. It is the latent meaning of the expression the demands atention, enables patient to feel understood.
23.	Suggesting collaboration	Perhaps you and I can discuss this and discover what produces your anxiety.	Offering to share, to work together with patient for his benefit. Offers opatient a relationship in which he can identify his problems in living with others.

COMMUNICATION SKILLS (continued)

24.	Summarizing	Have I got this straight? You've said that ___ During this past hour you and I have been discussing ___	Organizing and summarizing that which has gone before; seeks to bring together important points and to give each an awareness of progress made towards greater understanding.
25.	Encouraging formulation of a plan of action	What could you do to let your anger out harmlessly? Next time this comes up, what might you do to handle it?	Asking patient to consider kinds of behavior likely to be more appropriate in the future. Helping patient plan future actions.

INTERPERSONAL TECHNIQUES

Non-Therapeutic Techniques

	TECHNIQUE	EXAMPLE	COMMENTS
1.	Reassuring	I wouldn't worry about it. Everything will be all right. You're coming along fine.	Devaluated patient's own feelings by trying to dispel anxiety; places no value on patient's judgment. Effect of this response is to block person from further expressing feelings; belittling person who has problems or worries.
2.	Giving approval	That's good - I'm glad for you -	Sanctioning patient's ideas or behavior implies opposite is bad; tends to limit patient's freedom to think, to speak, or act in a way that displeases nurse. Approval and disapproval may alter behavior, but not lasting; no learning.
3.	Rejecting	Let's not discuss that - I don't want to hear about it.	Refusing to consider or showing contempt for patient's ideas or behavior. Closes off topic from exploration. Patient himself feels rejected. Patient avoids seeking help rather than risk further rejection. Nurse anxious or fearful lacks self-understanding.
4.	Disapproving	That's bad - I'd rather you wouldn't -	Judgmental -- implies patient is expected to please the nurse. Should acknowledge patient has right to behave as he does--acceptance.
5.	Agreeing	That's right -- I agree.	Gives patient idea that he is right because his ideas agree with the nurse's. Leaves patient little opportunity to modify his thinking without admitting error. Should not agree with delusions.
6.	Disagreeing	That's wrong - I definitely disagree with -- I don't believe that -	Opposing the patient's ideas, implies patient is wrong; he feels called upon to defend himself. Confines patient.

INTERPERSONAL TECHNIQUES (continued)

7.	Advising	I think you should -- Why don't you --	Telling patient what to do implies nurse knows what is best for patient and that he is incapable of self-direction. Keeps patient in a state of immature dependence on the judgment and guidance of others.
8.	Probing	Now tell me about -- Tell me your life history.	Persistent questioning of patient, makes patient feel he is being used--valued only for what he can give; puts him on the defensive.
9.	Challenging	But how can you be the President? If you're dead, why is your heart beating?	Demanding proof from the patient. The ideas of patient conceal feelings and meet needs that are real; tends to expand and strengthen his misinterpretations as he seeks support for his point of view. Delusions not given up to reality.
10.	Testing	What day is this? Do you know what kind of hospital this is? Do you still have the idea that ---	Appraising patient's degree of insight tends to try to convince patient of his incapacity; demands that he have insight into his lack of insight.
11.	Defending	The hospital has a fine reputation. No one here would lie to you. But Dr. B. is a very able psychiatrist.	Attempting to protect something or someone from verbal attack implies patient has no right to criticize or express his ideas, feelings, or opinions. Increases patient's feelings--that he has uncovered a weakness that others are trying to hide from him.
12.	Requesting an explanation	Why do you think that? Why do you feel that way? Why did you do that?	Asking the patient to provide a reason for his thoughts, feelings, behavior and events. Intimidating effect; may invent a reason.
13.	Indicating the existence of an external source	What makes you say that? Who told you that you were Jesus? What made you do that?	Attributing the source of thoughts, feelings, and behavior to others or to outside influence. Implies patient was made to think in a certain way; encourages patient to greater utilization of projection as a means of relieving anxiety. Relieves patient of responsibility for own thoughts and behavior.

INTERPERSONAL TECHNIQUES (continued)

14.	Belittling the feelings expressed	Pt: I have nothing to live for, I wish I were dead. Ns: Everybody gets down in the dumps, I've felt that way sometimes.	Misjudging the degree of patient's discomfort. Implies that the discomfort is temporary, mild and self-limiting; indicates lack of empathy.
15.	Making stereotyped comments	Nice weather we're having. I'm fine, how are you? It's for your own good. Keep your chin up.	Offering meaningless cliches, trite expressions; encourages a like response from patient.
16.	Giving literal responses	Pt: I'm an Easter Egg. Ns: What shade? You don't look like one.	Responding to figurative comment as though it were a statement of fact. Patient at a loss how to describe his feelings --best way of putting his thoughts into words. Feelings are so strange that unconventional expressions more suitable.
17.	Using denial	Pt: I'm nothing. Ns: Of course you're something. Everybody is somebody. Pt: I'm dead. Ns: Don't be silly.	Refusing to admit that a problem exists. Tends to avoid discussion of the problem; avoids helping patient identify and explore his difficulties. Denies validity of patient's feelings.
18.	Interpreting	What you really mean is -- Unconsciously you're saying--	Seeking to make conscious that which is unconscious; telling the patient the meaning of his experience. Implies patient's limited capacity to cope with his own problems. (Want to assist toward self-interpretation.)
19.	Introducing an unrelated topic	Pt: I'd like to die. Ns: Did you have visitors this weekend?	Changing the subject takes over the direction of the conversation; takes the initiative from patient.

From: Hays, Joyce S. and Kenneth Larson. Interacting with Patients. Macmillan, 1963.

DO'S AND DON'TS OF INTERVIEWING

DO	be assured of a quiet private setting without distractions and interruptions.
DO	use the most reliable source of information -- if not the patient, the closest family member.
DO	use prior knowledge of diagnoses (if known) to plan information you want to focus upon -- to obtain facts you need.
DO	explain before starting that the purpose of so many questions is to provide better nursing care by knowing more about the patient and family.
DO	write brief notations during your interview. Record dates, times, durations of hospitalizations and onsets of illness, etc. accurately.
DON'T	rely on memory.
DON'T	try to write finished sentences.
DO	be calm, unhurried, and sympathetic. Show genuine interest and concern. (Sensitivity encourages the patient to express his feelings.)
DON'T	show annoyance or exasperation when the patient hits a memory block. If you react with understanding, he may recall the information later, in a related question.
DO	use eye contact -- appropriately. Observe facial expressions and "body language" while doing so.
DON'T	stare at the patient or your outline.
DO	use neutral, open-ended questions to elicit the verbalization of feelings and additional information. Use leading questions sparingly and judiciously -- only to focus in on hazy comments.
DO	use the patient's pertinent words to add to clarification. By "knife-like" pain, you mean sudden and intense?
DO	use the terminology the patient understands. If not sure of his understanding, ask what it means to him; or ask him to describe what the word means to him. "Explain the 'nauseated feeling' you have."
DO	ask about the patient's complaints first, to have him feel purpose and expediency in your interviewing.
DON'T	start with delicate, personal questions too soon.
DO	allow the patient to finish his sentence, even if he's rambling. Then direct questions.
DON'T	continually jump between unrelated topics.

DON'T repeat questions unnecessarily. If a repeat question is necessary, reword the question for better comprehension.

DO accept what the patient says. A simple no, um-hm, or glance will encourage him to go on.

DO call the patient by name. Express friendliness, pleasure, and concern.

DON'T lose professional perspective or mannerisms.

DO speak clearly, slowly and distinctly.

DO listen.

SOURCE: Potter, P.A. and Perry, A. G. (1985). Fundamentals of Nursing (p. 145). St. Louis, Toronto, Princeton: C. V. Mosby Company

RESPONSE CATEGORIZATION TO ANXIETY LEVELS

LEVEL OF ANXIETY	PHYSIOLOGIC	COGNITIVE	BEHAVIORAL AND EMOTIONAL
Minimal	Relaxation response: Pulse Respirations O_2 consumption Pupillary constriction Muscle tension Blood pressure	States of altered awareness Daydreaming Yoga Relaxation Biofeedback Transcendental meditation Some stages of sleep Emotional and cognitive activity minimal Focus typically on single mental image.	Disregard for environmental stimuli; no attempt to deal with external stimuli. No verbal interaction. Muscles relaxed; passive movement easy.
Mild (+)	Muscle tension at minimum; passive control of interaction between psychologic processes and muscular activity.	Perceptual field broad: Ability to take in multiple stimuli. Passive awareness of environment.	Feelings of safety and comfort. Behavior primarily automatic; carrying out well-known habits and skills, noncompetitive games and pastimes. Solitary activities. Facial muscles appear relaxed. Voice calm.
Moderate (++)	Increased tension that is tolerable, even pleasurable Maximum conscious interaction between mind, body and emotions. Attention focuses; sees, hears, and grasps fewer stimuli than +1 anxiety. Alertness	Perceptual field narrowed: Ability to solve problems at all levels, optimal level for learning. Can attend to specifics if directed to do so.	Feelings of challenge and the need to handle the situation at hand. Competitive games; carrying out less familiar skills and habits. Voice denotes concern and interest with environment.

RESPONSE CATEGORIZATION TO ANXIETY LEVELS (continued)

LEVEL OF ANXIETY	PHYSIOLOGIC	COGNITIVE	BEHAVIORAL AND EMOTIONAL
Severe (+++)	Survival response (fight or flight) Sympathetic nervous system activation: Epinephrine BP, P, R Skin vasoconstriction Body temperature Diaphoresis Dry Mouth Urinary urgency Loss of appetite: Blood to digestive system Glucose production by liver Sensory changes: Hearing perception Pain perception lessened Pupils dilated; vision fixed Muscles tense, rigid (may be fixed)	Perceptual field greatly reduced: Time sense distorted. Selective inattention operates: stimuli threatening to self-system and biologic integrity or expectations may be filtered out. Dissociating tendency: events and/or feelings are denied existence in awareness. Selective enhancement operates: focus on one particular or many scattered details. Problem-solving difficult	Feelings of increasing threat; need to respond to situation is heightened. Personal space is extended. Physical activity may increase with decreasing organization and purposefulness (pacing, wringing of hands, running away, freezing on the spot, trembling, stammering, fidgeting). May feel nauseated. May experience "cold sweat." Anxiety easily increased with new stimuli such as noise or people approacing patient. Verbalization typically rapid and/or characterized by blocking. Flight behavior may be manifested psychologically with withdrawal, denial, depression, somatization.
Panic (++++)	Continued physiologic arousal Eventual release of sympathetic discharge: Blood returns to major organs (individual may appear pale) May be hypotensive Ability to respond to pain, noise, external stimuli at minimum. Motor coordination poor. Blood flow to skeletal muscles.	Perceptual field closed, may be distorted. Thoughts are random; logical thinking is impaired. Details may be "blown up" or the speed of scattering increased. Unable to solve problems; new stimuli tend to overload mental functioning.	Feelings of anger, helplessness emerges; may be experienced as rage, dread, awe, terror. Individual may strike out physically or verbally or may withdraw. Behavior may be primitive; crying, biting, flailing, curling up. Physical activity increasingly disorganized. Voice pitch higher, louder, flow of words rapid; sometimes may experience blocking of speech. Facial expression of terror, grimacing.

Taken From: Brill, Esther Levine and Dawn F. Kilts. Foundations for Nursing Practice. New York: Appleton-Century-Crofts, 1980. pp. 184-185.

PRINCIPLES THAT PROMOTE A THERAPEUTIC RELATIONSHIP

1. Human needs appear on a hierarchy from needs that are high in rank to those that are lower in importance at any given time.

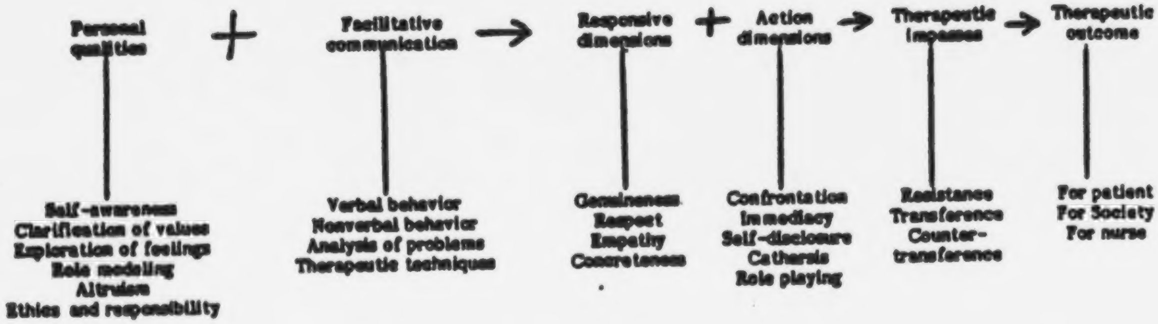
2. The physiologic needs usually must be met before other needs; however, all needs interact.

3. Human beings can help each other meet their needs.

4. Therapeutic relationships are based on respect for the individuality of the participants.

5. All behavior is motivated and there is a cause for it.

ELEMENTS AFFECTING THE NURSE'S ABILITY TO BE THERAPEUTIC


Personal qualities
+
Facilitative communication
→
Responsive dimensions
+
Action dimensions
→
Therapeutic impasses
→
Therapeutic outcome
Self-awareness
Clarification of values
Exploration of feelings
Role modeling
Altruism
Ethics and responsibility
Verbal behavior
Nonverbal behavior
Analysis of problems
Therapeutic techniques
Genuineness
Respect
Empathy
Concreteness
Confrontation
Immediacy
Self-disclosure
Catharsis
Role playing
Resistance
Transference
Counter-transference
For patient
For Society
For nurse

Taken From: Stuart and Sundeen. Principles and Practice of Psychiatric Nursing. St. Louis: C. V. Mosby Company, 1983. p. 63.

DEFINITIONS OF ABOVE TERMS: (terms not defined here are common knowledge or are in Mereness' Essentials of Psychiatric Nursing.)

1.	Concreteness	use of specific terminology rather than abstractions, in the discussion of the patient's feelings, experiences, and behavior.
2.	Confrontation	an expression by the nurse of perceived discrepancies in the patients' behavior. It is an attempt by the nurse to bring to the patients' awareness the uncongruence in his feelings, attitudes, beliefs, and behaviors.
3.	Role Playing	acting out of a particular situation. It functions to increase the person's insight into human relations and can deepen one's ability to see a situation from another point of view.
4.	Immediacy	state that occurs when the current interaction of the nurse and the patient is focused on.
5.	Catharsis	release that occurs when the patient is encouraged to talk about things that bother him most. Fears, feelings, and experiences are brought out into the open and discussed.

ETHICAL/LEGAL TERMS

Confidentiality	The protection of a patient's privacy through careful use of oral and written communication.
Informed Consent	A decision to accept treatment based on knowledge of both the possible hazards and the benefits of treatment.
Privileged Communication	A legal term that applies only in court-related proceedings and means that the right to reveal information belongs to the person who spoke and the listener cannot disclose the information unless the speaker gives permission. It exists between a patient and health professional only if a law specifically established it.

SUBMODULE III

THE CONCEPT OF MENTAL HEALTH

A. INTRODUCTION:

This module examines the concept of mental health from a historical perspective as it relates to individuals in various life developmental stages.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Discuss the factors involved in conceptualizing mental health.
2. Discuss the definition(s) of mental health
3. Discuss the current care of the mentally ill from a historical perspective.
4. Discuss the process of labeling the mentally ill
    a. identify DSM III
5. Explain the commonly occuring entry modes into the mental health care system.
6. Identify factors influencing entry into the mental health care system.
7. Identify the legal rights of mentally ill patients
8. Discuss the nurses role relative to ethical/legal issues in mental health care.
9. Identify potential developmental stalls in the life cycle.
10. Discuss commonly occuring behavioral manifestations associated with these developmental stalls.
11. Discuss community mental health intervention along the public health model of primary, secondary and tertiary prevention.
12. Discuss the role of the nurse in prevention of mental health dysfunction.
13. Discuss community resources available for patients and significant others experiencing stressors affecting the Psychosocial Need.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Johnson, Barbara S. Psychiatric-Mental Health Nursing: Adaptation and Growth J.B. Lippincott Co. 1986 pp. 3-6, 48-55, 59-66, 619-631

E. SUPPLEMENTAL: Any Psychiatric Nursing textbook

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion

F. PRE-TEST/POST-TEST:

Read each question carefully and choose the best response.

1. General criteria for a mental disorder include all the following EXCEPT:

    a. dissatisfaction with one's characteristics, abilities, and accomplishments.
    b. ineffective or unsatisfying interpersonal relationships.
    c. satisfaction with one's place in the world
    d. ineffective coping or adaptation to the events in one's life as well as a lack of personal growth.

2. In the 19th Century, mental illness was reviewed as:

    a. demonic possession
    b. a source of public entertainment
    c. supernatural phenomena
    d. curable

3. Rehabilitation is considered:

    a. primary prevention
    b. secondary prevention
    c. teritiary prevention

4. The overall goal of community mental health nursing is to:

    a. provide the optimum level of mental health for a community and its' members.
    b. provide for the treatment of mentally ill individuals.
    c. provide social services to the community and its' members.
    d. prevent the occurance of mental disorders

5. An adolescent who emulates the latest teen hero in dress, speech, and manorism, may be experiencing a stall in which of the following developmental stages:

    a. autonomy versus shame and doubt
    b. initiative versus guilt
    c. industry versus inferiority
    d. identity versus role confusion

6. Mrs. Jones tried to slash her wrists with a razor blade. The razor blade was taken from her before she had cut herself. She was taken to a psychiatric facility and detained. Her admission would be an example of a (an):

    a. voluntary admission
    b. emergency admission
    c. involuntary admission

7. The Wyatt vs Stickney case determined that psychiatric patients have all the following treatment rights EXCEPT:

   a. treatment must give some realistic opportunity to imporve or be cured.
   b. custodial care is insufficient to meet treatment requirements.
   c. a lack of funding excuses a state from treatment responsibilities.
   d. commitment without treatment violates the due process rights of patients.

ANSWERS: 1. C, 2. B, 3. C, 4. A, 5. D, 6. B, 7. C

SUBMODULE IV

Nursing Process as it Applies to the Patient Experiencing Stressors of Loss/Grief.

A. INTRODUCTION:

As the normal life proceeds, each of us incur losses, varying in type and number. As individuals, we each deal with loss in our own unique way. This submodule focuses on some of these losses and how they impact upon PERSON. It will also identify some common approaches to losses which will be useful in applying the nursing process to care of these patients.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of loss/grief based upon:
    a. differentiating between the concept of loss and grief.
    b. identifying major types of losses most commonly experienced by people throughout life.
    c. discussing how social/cultural factors can affect the way in which a person grieves.
    d. identifying the common signs and symptoms of grief displayed by patients.
        (1) somatic
        (2) psychological
        (3) social and behavioral
2. Identify principles of nursing to consider when planning for the care of the patient experiencing the stressors of loss and grief.
3. Discuss topics on which nurses may provide information to patient/significant others during the grief process.
4. Identify the appropriate nursing skills/actions to assist the grieving patient and significant others to maintain PERSON.
5. State factors to consider when evaluating the nursing care of patients experiencing stressors of grief/loss.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Gray, Ruth "Grief" Nursing '74 Jan. 1974 pp.25-27
2. Johnson, Sherry "Giving Emotional Support to Families After a Patient Dies" Nursing Life Jan/Feb 1983 p.33-39

AUDIOVISUAL:

"Expressing Grief" WS 105 D 285 1975

SUPPLEMENTAL:

Smith, Sandra and Duell, Donna Clinical Nursing Skills
Los Altos, Calif. National Nursing Review 1985
pp. 881-889

E. LEARNING ACTIVITIES:

1. Prior to class, read and view the materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. POST-TEST:

Read each question carefully and select the best response.

1. Which of the following words best describes the role of the nurse when caring for a grieving family after the death of a loved one?

   a. advising
   b. advocating
   c. sympathizing
   d. supporting

2. What is the best response to the person who is exhibiting severe depression related to grief?

   a. encourage participation in social activities available.
   b. keep up cheerful conversation where you are with the patient.
   c. spend time with the patient, accepting the depressed behavior.
   d. suggest diversions such as games to cheer the patient up.

3. A patient with a new traumatic quadraplegia is cheerful and outgoing. He welcomes visitors and makes his room a center for hilarious joking. What might this behavior indicate?

   a. an abnormal response to the injury
   b. the stage of disblief and denial
   c. an exceptional ability to adapt to this traumatic change.
   d. none of the above

4. A young woman has lost her leg as a result of bone cancer. She refuses to allow the staff, her husband, or her family to assist her in her activities of daily living. The nurse recognizes that the patient is most apt to be:

   a. acting in an acceptable, independent manner
   b. consciously testing her family's reaction to her loss of an extremity.
   c. using denial while adjusting to her changed body.
   d. wanting to relieve her family of dealing with her initial discouragement.

5. The nurse might be effective in helping a patient with a new colostomy adjust to it by:

   a. making the patient responsible for his own colostomy care.
   b. presenting an accepting and positive attitude
   c. telling him how to irrigate his colostomy
   d. telling him that many famous people have colostomies.

6. A patient with a new colostomy expresses hostility toward the nursing staff and accuses them of incompetence. What might be the basis of this reaction?

   a. an abnormal response to body change
   b. a severe psychological problem in adjustment requiring professional help.
   c. a normal response to a major body change
   d. evidence of a critical personality

ANSWER: 1. D, 2. C, 3. B, 4. C, 5. B, 6. C

SUBMODULE V

Nursing Process as it Applies to the Patient Who is Experiencing Stressors of Dying/Death.

A. INTRODUCTION:

The nursing care of the dying involves far more than merely passively watching the sands of time run out: caring for the dying need not be an experience of helplessness for the nurse. This submodule will look at the process of dying, reactions to dying, and ways in which providing care for a dying person can be both a challenge and an opportunity for the nurse. It will also discuss care after death.

B. TERMINOLOGY LIST

1. grief
2. loss
3. chronological age
4. gerontology
5. autopsy
6. euthanasia
7. hospice
8. living will
9. thanatology
10. terminal illness

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing the stressors of death/dying based upon:
    a. discussing euthanasia, The Dying Person's Bill of Rights.
    b. identifying the influences on reactions to dying and death:
        (1) age
        (2) religious and spiritual beliefs
        (3) cultural beliefs
        (4) nature of the dying and death process
        (5) awareness of life and death

c. listing the stages of dying in order of occurence, and identify some characteristic patient behavior of each stage.
d. comparing and contrasting the stages of grief with the stages of dying.
e. discussing guidelines used in defining death
f. describing five signs of approaching death
g. identifying variables that influence a patient's manner of dying and death:
   (1) characteristics of the patient
   (2) availability of support and assistance
   (3) environment
h. identifying the impact that the process of dying has upon PERSON.

2. Identify principles of nursing to consider when planning for the care of the patient experiencing stressors of dying.
3. Discuss topics on which nurses may provide information to patients/significant others during the dying process.
4. Identify the appropriate nursing skills used in caring for the patient in each of the five stages of dying.
5. Identify the appropriate nursing interventions in caring for the individual after death.
6. State the factors to consider when evaluating nursing care.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Nurse Reference Library Practices 1985 (pp. 443-473) St. Louis: C.V.Mosby Co.

2. Goffnett, Carol "Your Patient's Dying, What Now?" Nursing '79 Nov. 1979 pp. 27-31

3. Kubler-Ross, Elizabeth "What Is It Like to be Dying?" American Journal of Nursing Life Jan. 1971 pp.54-60

4. Johnson, Sherry "Giving Emotional Support to Families After a Patient Dies" Nursing Life Jan/Feb 1983 pp. 34-39

5. HANDOUT: The Dying Person's Bill of Rights

6. AUDIOVISUALS:

   a. "Death as a Reality of Life" WS 105 D285 1975
   b. "The Importance of Funerals" WS 105 D285B 1975
   c. "Care of the Dying Patient" WY152 C 271d 1971

OPTIONAL:

1. Narrow, Barbara W. and Kay B. Buschle Fundamentals of Nursing Practice.. John Wiley & Sons 1982 Ch. 18, Sec. 6, pp. 245-251, Ch. 37, pp. 615-626

2. Smith, Sandra and Donna Duell Clinical Nursing Skills Los Altos, Cal. National Nursing Review 1985 pp.889-894

3. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 189-203

E. LEARNING ACTIVITIES:

1. Read and view materials listed under Learning Resources prior to class.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST AND POST-TEST:

Read each question carefully and choose the best response.

1. In response to the over-whelming reality of death, all of the following individuals display psychologic coping mechanisms. The nurse will probably find it most difficult to deal with the person who:

   a. refuses to recognize that they are dying
   b. transfers their angry feelings related to death onto other people.
   c. takes a casual, intellectual approach to their death.
   d. openly discusses their feelings and anxieties related to death.

2. Which statement best reflects a person who is in the bargaining stage of the dying process?

   a. "I have so many things to do before I die"
   b. "I'll finish college next year"
   c. "If I take this medication, will you give me more later?"
   d. "If only I were a better person.. maybe I'll live longer".

3. Common concerns and fears that are frequently expressed by those who are dying include:

   a. abandonment
   b. isolation
   c. loss of control
   d. all the above

4. According to Kubler-Ross, a dying person reaches the stage of acceptance when they have:

   a. acknowledged the reality of their death
   b. completed all unfinished business
   c. resigned themselves to their fate
   d. exhausted all alternative outcomes

5. Mr. Author tells his nurse that he knows he doesn't have long to live. Which of the following statements would best facilitate communication with this patient?

   a. "How long do you think you have?"
   b. "I'm sure that everything is going to be all right"
   c. "Why do you feel that way?"
   d. "You feel as though you don't have long to live.."

6. The primary purpose of a living will is to describe a person's:

   a. requests concerning the use of his body organs.
   b. wishes concerning the nature of his terminal care.
   c. bequests concerning the disposal of personal belongings.
   d. desires concerning the way in which the body will be handled after death.

From COLUMN II, select the stage of dying each comment made by a terminally ill patient given in COLUMN I most accurately reflects, according to Kubler-Ross:

COLUMN I	COLUMN II
7. ___ "Yes, me, but	a. stage of anger
	b. stage of depression
8. ___ "Why me?	c. stage of denial
	d. stage of bargaining
9. ___ " No, not me	

ANSWER: 1. B, 2. D, 3. D, 4. B, 5. D, 6. B, 7. D, 8. A, 9.C

SURVIVING DEATH

The Rev. Charles Meyer
Director, Department of Pastoral Care
St. David's Community Hospital
Austin, Texas

The young woman, weak and dying, reaches out from her hospital bed for her sobbing husband. He bends over her, wrapping his arms around her thin frame as she cries: "I'm so sorry. I'm so sorry. I didn't mean to leave you like this." He answers: "I know. I love you. It's okay. I love you."

Three hours later, having lapsed into a coma, she takes her final breath and dies. For her it is over. For her husband a new task has just begun. The task is survival.

There are no courses in how to survive deep losses. Most of the literature on grief and bereavement is either coldly clinical, unrealistically emotional, or piously religious. Grieving persons are described either in terms of aberrant behavior or with such faith as to make the rest of us appear hopeless. Cultural guidelines are unclear or nonexistent and advice from friends is frequently contradictory.

It is possible, however, to get some clarity about the task of survival from those who are going through it. You will note that I did not say "have gone through it." Surviving deep loss is always a present task. One does not "get over it," "recover from it," or "go on" in the usual decisive sense of those phrases. Once a deep loss has been sustained the experience of it will recur periodically, calling on the best coping resources the person has available.

Some of the people who are facing the task of surviving the death of a spouse, child, parent or friend meet together monthly to share their reactions and experiences in the Bereavement Group sponsored by the Department of Pastoral Care at St. David's. The following suggestions, comments and observations from that group help shed light on a largely unknown path and provide relief in the affirmation that we are not alone in the sometimes bizarre feelings and behaviors that accompany our daily struggle to survive death.

1. From Shakespeare's MacBeth: "Give sorrow words. The grief that does not speak whispers the o'er fraught heart and bids it break." Talk about the loss. Talk about the pain, the loneliness, the anger, the hurt, the depression, or whatever feelings arise. Find someone (friend, clergy, professional counselor) who will listen without giving advice or feel obligated to "fix it." A good friend will know it can't be fixed and will listen openly. Grief is like gas on your stomach that needs to be burped: there's more room outside than there is in.

2. Grief is physical. Most people expect bereavement to be a time of deep emotional exhaustion, and indeed this is true. What they don't expect is the constant tiredness, lethargy and lack of initiative. The body seems to require inordinate hours of sleep (and at odd times) to physically process all the emotional turmoil. Even persons who eat and exercise will complain of lying in bed for long periods of time just staring into space, resting and thinking.

   Grief is hard work both emotionally and physically especially after a lengthy illness during which time people may not have realized the stress they were under. Allow yourself time for rest and, if possible, let sleep come whenever it will.

3. Just because someone is dead doesn't make them right.
I frequently hear people say: "(Name) would have wanted me to do this." While the phrase is usually a way of confirming a decision about the life of the survivor, it can also be a method of coercing yourself into doing something against your better judgment.

You probably did not do what the other person always wanted when she/he was alive and it is alright to continue to disagree and to follow the course of best interest for yourself. Death does not confer posthumous infallibility.

4. It is possible to feel opposite emotions simultaneously. Unfortunately most people have been taught to believe that feelings exist in an either-or dichotomy. Thus, if you feel extreme sadness about the loss, how can you feel extreme relief at the same time? The fact is that we do feel both sadness and relief, love and anger, hope and despair all at once as we react and respond to the different parts of us working to make sense out of what has happened.

As you yo-yo from elation to depression and back again, our emotions are right on the surface and very volatile. Sometimes it feels good to feel bad and often it feels bad to feel good. Give yourself permission to feel many things at once. Then take time to sort them out by talking with someone you trust or through some creative expression such as keeping a journal, drawing/painting them, working them out in clay.

5. Releasing pain is not erasing memory. Strange as it may sound most people are apprehensive about giving up intense grieving. They believe that their grief, however publicly or privately portrayed, is a sign of their caring for the person. To give it up or even lessen it might be seen by themselves and others as a diminishing of that caring. Likewise there is the fear that to release the pain will mean relinquishing the person's memory.

The physical pain of grieving, especially crying, may indeed be the only sense of sustained contact with the person who died. It is feared that to lessen the pain is to lessen the contact.

In fact, the exact opposite is true. Releasing pain gradually allows time and space for more pleasant and vivid memories to surface. The person's memory becomes more a part of daily living and less a chore to be remember. The sense of contact and caring becomes more natural and there is less panic about "safeguarding" the relationship, lest it slip away.

6. It's okay to feel suicidal. Just because you feel suicidal doesn't mean you are suicidal. Feelings are not facts. To want to die is a normal response to deep loss. It seems the only certain way to be back with the person again. Often it is also a statement of strength, of wanting to regain control over life and a first step toward doing so.

For the same reason it is okay to "wallow." Having sustained a deep loss, it is perfectly normal to feel despairing, depressed, incredibly sad. Instead of denying or discounting the feelings, let them surface a while. A good wallow will help.

you feel better later. Talk about these feelings with someone who understands you're not crazy, just hurting.

7. Alone and lonely are not synonymous. Contrary to telephone and diamond commercials it is possible to spend time, even enjoyable time, by yourself. Being alone does not require being lonely. Loneliness is a self-inflicted condition that can be experienced with one other person or with a group of persons. Being alone does require filling in the time with some organization and creativity. (If you don't fill it in yourself, others will manage to do it for you and probably less satisfactorily.)

8. Time doesn't heal -- it merely passes. The old truism that "time heals all wounds" is untrue. In fact, at least for the first year or two, time makes it worse. The passage of days and weeks filled with anniversaries, holidays, special remembrances and things that we planned to have been done together only make the death more vivid and the loss more real.

   Many people describe deep loss "as though someone cut something out of me and left a gaping, bleeding hole." Such wounds will not passively heal themselves with the mere passage of time. They need active attention and stitching/mending. Forgiveness, love, creativity, sharing, relationships -- these are the threads that will suture the wound, mend it, so that healing can begin. Grieving does not necessarily mean growing. Time will pass. How we actively fill that time will determine whether and how we heal.

9. Expect to be "blindsided". One of the most embarrassing and frightening experiences of deep loss is to be perfectly normal one minute and, for no apparent reason, suddenly dissolved the next. It is as though a part of us is always on the lookout for remembrances. We may be in a restaurant or in the car when a song comes on the radio, doing dishes or other housework alone, visiting friends, hearing the phone ring or watching t.v. when suddenly some part of us makes a connection and we become teary or sad, usually without knowing why.

   Depending on the situation and the memory, the feeling can be fleeting or longer lasting. In either case, allow it to run its course, preferably by telling the incident to someone. It is important to know that it is okay, that it is normal, that it will pass and that it will happen with less and less frequency.

10. Laughing is not disrespectful. Hold on to your sense of humor. Even though someone has died, funny things will continue to happen at work, at home, to others and, believe it or not, to you. It is okay to laugh at these things without feeling guilty or disrespectful to the person for not spending twenty-four hours a day grieving for them.

    Humor is a great stress reducer; it is another of the active sutures necessary to help close the wound and heal. Besides, glumness is boring; but suture self.

11. There is sex after death. Although there is usually an initial loss of libido that will last for varying amounts of time, your need for closeness, warmth and sex will return. Frequently this resurgence of sexual desires is greeted internally by a combination of guilt, anger and fear.

The grieving person may feel guilt about "cheating," "being disrespectful," or "wanting someone new." Anger may surface at the dead person, at the new object of affection, at one's self, or simply at being in the situation. Fear accompanies the need to ask for dates and face rejection, the awkwardness of sexual intimacy with a new, uncomfortable partner, and the certain tendency to commitment again.

Because sexual desires, behaviors and beliefs are so different, there are fewer common responses to this dilemma. It is important to remember, however, that impotence and loss of libido are normal and that sexual desires will return as other tasks of grieving are worked through. How you decide to act on those desires will largely be determined by your individual belief system.

Remember too that it is okay to change, to risk new sexual behavior, to be sexual and sensual even while feeling angry, guilty or scared.

12. Not less pain, only less frequent. There is no "normal" time for the "completion" of grieving. Different people with different kinds of losses and relationships will grieve for different periods of time. There are indeed some deep losses over which people will grieve their entire lives. Twenty years after the death you may hear a song, see a piece of jewelry or visit a familiar place and suddenly become teary or sad; and that is entirely normal.

It is also true that while the loss does not become any less painful, the occasions of experiencing that pain becomes less frequent. The depth of the pain never decreases; when you get in touch with the loss from time to time, the depth of feeling is the same. The only change is that the times you get in touch with it will be further and further apart.

And there is some comfort in this fact. A part of us will always remember the relationship with the person who died as it was at that time and will feel the pain proportionately. Another part of us moves on, not forgetting or denying the pain and grief, but rather incorporating and integrating it into our whole life's experience.

As the above statements indicate, there are commonalities in responding to deep loss and there is some comfort for grieving persons in that knowledge. It is important to remember, however, that each person will experience loss in his/her own individual way, with nuances, feelings and memories that are special to their particular situation. These observations are offered as a place to start, no matter where we may be in the singular task of surviving death.

THE DYING PERSON'S BILL OF RIGHTS

I have the right to be treated as a living human being until I die.

I have the right to maintain a sense of hopefulness however changing its focus may be.

I have the right to be cared for by those who can maintain a sense of hopefulness, however changing this might be.

I have the right to express my feelings and emotions about my approaching death in my own way.

I have the right to participate in decisions concerning my care.

I have the right to expect continuing medical and nursing attention even though "cure" goals must be changed to "comfort" goals.

I have the right not to die alone.

I have the right to be free from pain.

I have the right to have my questions answered honestly.

I have the right not to be deceived.

I have the right to have help from and for my family in accepting my death.

I have the right to die in peace and dignity.

I have the right to retain my individuality and not be judged for my decisions which may be contrary to beliefs of others.

I have the right to discuss and enlarge my religious and/or spiritual experiences, whatever these may mean to others.

I have the right to expect that the sanctity of the human body will be respected after death.

I have the right to be cared for by caring, sensitive, knowledgeable people who will attempt to understand my needs and will be able to gain some satisfaction in helping me face my death.

This Bill of Rights was created at a workshop on "The Terminally Ill Patient and the Helping Person," in Lansing, Michigan, sponsored by the Southwestern Michigan Inservice Education Council and conducted by Amelia J. Barbus, associate professor of nursing, Wayne State University, Detroit.

SUBMODULE VI

The Nursing Process as it Applies to the Patient Experiencing Stressors of Psychological Dysfunction: Anxiety Disorders, Somatoform Disorders, and Psychophysiologic (Psychosomatic) Disorders.

A. INTRODUCTION:

This submodule explores psychosocial dysfunctional disorders in which frustration and anxiety play a major causative role in the development of psychological symptomatology.

B. TERMINOLOGY LIST

1. affect
2. anxiety
3. blocking
4. compulsion
5. concretness
6. consensual validation
7. conversion
8. depersonalization
9. dissociative
10. emotional lability
11. euphoria
12. fear
13. free floating anxiety
14. fugue state
15. guilt
16. helplessness
17. hypochondriasis
18. hysteria
19. inappropriate affect
20. negativism
21. neurosis
22. obsession
23. phobia
24. primary gain
25. psychophysiologic
26. secondary gains
27. somatoform disorder
28. state anxiety

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient with the stressors of psychological dysfunction.
    a. identification of the behaviors associated with the following disorders:
        (1) somatoform disorders
        (2) anxiety disorders
        (3) psychophysiologic (psychosomatic) disorders.
    b. discuss the following in relation to the above disorders:
        (1) level of anxiety
        (2) coping (defense) mechanisms
        (3) precipitating factors

- c. explanation of the usual medical interventions for the above disorders:
    - (1) antianxiety agent (minor tranquilizers):
        - (a) Meprobamate (Miltown, Equanil)
        - (b) Librium
        - (c) Valium
    - (2) psychotherapy
        - (a) one to one
        - (b) group
        - (c) family
    - (3) medical treatment for specific physical manifestations.
- d. explain the impact of psychosocial dysfunction on PERSON.

2. Identify the components of a nursing plan of care to assist the patient with psychosocial dysfunction in the areas of the above disorders:
    - a. identification of appropriate goals based upon:
        - (1) trusting relationship
        - (2) patient insight
        - (3) patient's coping mechanisms
        - (4) patient compliance with treatment
        - (5) locus of decision-making
    - b. identification of appropriate nursing interventions based upon the above mentioned goals.
3. Identify appropriate information to provide patients experiencing stressors of psychosocial dysfunctions related to objective 1a.
    - a. teach patient:
        - (1) to recognize anxiety
        - (2) to deal with anxiety realistically
        - (3) about minor tranquilizers
4. Identify factors to consider when evaluating patient care based upon all the above objectives.
5. Demonstrate the ability to therapeutically intervene in the care of patients (if available), assigned to your care based upon objectives 1,2,3,4.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Campsey, J.P. "Psychophysiological Illness" Journal of Psychiatric Nursing, Nov. 1979 pp.26-30

2. Johnson, Barbara S. Psychiatric-Mental Health Nursing: Adaptation and Growth J.B. Lippincott Co. 1986 pp. 471-484, 258-259, 265-275

3. Handout on Anxiety and Somatoform Disorders

SUPPLEMENTAL:

Any Psychiatric Nursing text

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE -TEST/ POST-TEST:

Read each question carefully and select the best answer.

1. Which of the following descriptions best describes the current view of psychophysiologic disorders.
   - a. psychophysiologic disorders have a psychological etiology and other diseases are primarily physical in origin.
   - b. disruption or unrest in any one system affects the whole system.
   - c. psychophysiologic disorders are purely psychosomatic.
   - d. psychophysiologic disorders describe invididuals experiencing certain physical disease processes.

2. Anxiety reactions:
   - a. involve the whole organism
   - b. can lead to panic attacks
   - c. are frightening to the patient
   - d. all the above

3. When caring for an anxious patient, the nurse should:
   - (1) identify behaviors that indicate the patient is becoming anxious.
   - (2) help the patient explore the reality of a situation and the expectations of the patient.
   - (3) help the patient talk when ready without forcing or probing.
   - (4) help the client learn to tolerate some anxiety because this is part of living.
     - (a) 1,3,4
     - (b) 2,3
     - (c) 1,4
     - (d) all the above
4. Coping mechanisms are identified as all of the following EXCEPT:
   - a. are outside conscious control
   - b. can sometimes be functional
   - c. at times prevent adequate coping
   - d. reality presentation

5. The major side effects of antianxiety agents include:

   a. ataxia, hypotension, skin rashes
   b. anorexia, hallucinations, QRS complex changes
   c. dry mouth, urinary retention, headaches
   d. hypoglycemia, obstruction jaundice, constipation

6. In panic levels of anxiety patients may:

   (1) scream incoherently
   (2) cling to someone or something
   (3) exhibit both fine and gross motor tremors
   (4) pace and wring hands

      (a) 1,2
      (b) 1,3
      (c) 1,2.3

ANSWERS: 1.B, 2.D, 3.D, 4.D, 5.A, 6.B

MODULE III

THE SAFETY NEED

THE SAFETY NEED

Prior to beginning this module, turn to Appendix I and review the listed objectives. The student is responsible for all of the knowledges and skills identified in the objectives.

INTRODUCTION:

This module examines the Safety Need as defined by the Austin Community College Associate Degree Nursing Program: "the need for protection from stressors in the external environment which could cause harm." In every nursing action, the primary concern of the nurse is the safety of the patient and all other individuals involved. Therefore, safety will be emphasized throughout the program. This module is divided into the following submodules:

I. The Nursing Process as it Applies to the Patient Experiencing the Stressors of Surgery.
II. The Nursing Process as it Applies to the Patient Experiencing the Stressors of Infection.
III. The Nursing Process as it Applies to the Patient Experiencing the Stressors of Common Disorders of the Skin.
IV. Intravenous Therapy
V. The Nursing Process as it Applies to the Patient Experiencing the Stressors of Fluid and Electrolyte Imbalances.

MODULE OBJECTIVES:

At the completion of this module, the student should be able to:

1. Apply the nursing process to aid an adult patient experiencing the stressors of surgery.
2. Apply teaching/learning principles when providing patients with peroperative information or other strategies for maintaining their safety need.
3. Apply the nursing process to aid an adult patient experiencing the stressors of infection.
4. Apply the nursing process to aid an adult patient experiencing the stressors of common disorders of the skin.
5. Establishe , maintain , and discontinue the administration of fluids and drugs by the intravenous routes.
6. Apply the nursing process to aid an adult patient experiencing the stressors of fluid and electrolyte imbalances.
7. Recognize the relationship between learning and professional growth by assuming the responsibility for meeting the submodule objectives.

SUBMODULE II

The Nursing Process as it Applies to the Patient Experiencing the Stressor of Surgery.

A. INTRODUCTION:

This submodule discusses the nursing care of the patient in the perioperative period. The logical sequence follows the patient from the preoperative to the postoperative with focus on assisting the patient in the maintenance of PERSON by utilizing the nursing process.

B. TERMINOLOGY LIST

1. Suffixes

centesis	--	puncture to aspirate
desis	--	fusion
ectomy	--	surgical excision of
lysis	--	freeing of
orrhaphy	--	repair of
oscopy	--	examination of an organ by viewing
ostomy	--	the creation of an artificial or new opening through the wall of an organ
otomy	--	cutting into an organ or tissue
pexy	--	to fix or suture in place
plasty	--	restoration of a lost part or piece of tissue

2. Prefixes

a or an	--	without or not
ante	--	before, forwards
anti	--	against, opposite
circum	--	around, about
dys	--	bad, difficult
extra	--	outside, beyond, in addition
hemi	--	half
hyper	--	above, over, excessive
hypo	--	below, under
infra	--	underneath, below
inter	--	between, among
intra	--	within, on the inside
peri	--	around, about
post	--	after, behind, during
pre	--	before
retro	--	behind, backwards
semi	--	half
sub	--	under, beneath
super	--	above, over
supra	--	on the upper side, above
trans	--	across, beyond
ultra	--	beyond, over

3. Roots

adeno	gland
arthro	joint
blepharo	eyelids
cardi	heart
chole	gall
cholecyst	gallbladder
col	colon
colpo	vagina
cranio	brain
cysto	urinary bladder
dent	tooth
dermat	skin
entero	intestines
gastro	stomach
hepato	liver
hystero	uterus
jejun	second part of intestine
lamin	posterior vertebral arch
mast	breast
myo	muscle
nephro	kidney
neuro	nerve
oophor	ovary
ophthalm	eye
orchio	testicle
os	bone
ot	ear
pharyng	throat
phleb	vein
pneumo	lung
procto	rectum
prostate	prostatic gland
pyelo	pelvis of kidney
rhino	nose
salping	fallopian tube
spermato	semen
splanchno	viscera
teno	tendon
thoraco	chest
trachelo	neck or necklike structure
ureter	kidney tube
vas	vessel or duct

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

Pre-operative phase

1. Demonstrate the ability to collect PERSON data for assessment of the patient experiencing the stressors of surgical intervention.
    - a. identify patients "at risk" for surgical procedures
        - (1) discuss assessment of surgical risk
        - (2) explain the effects of the aging process as related to the surgical patient.
        - (3) disucss legal implications associated with informed consent.
        - (4) identify the role of the registered nurse in obtaining informed consent.
        - (5) assess the pre-operative patient based upon:
            - (a) the patient's ability/inability to maintain his basic needs (PERSON).
            - (b) diagnostic test: Hemoglobin/Hematocrit; Complete Blood Count; Electrocardiogram; Chest x-rays; Urinalysis.
            - (c) recognition of actual problems
            - (d) recognition of potential post-operative problems related to known/unknown risk factors.
2. Formulate nursing diagnoses based on data collection
3. Use appropriate nursing principles in planning care for a patient experiencing the stressor of the pre-operative phase.
    - a. Pre-operative teaching/learning
    - b. Pre-operative medications:
        - (1) Atropine
        - (2) Valium
        - (3) Vistaril
        - (4) Tagamet
        - (5) Demerol
        - (6) Morphine Sulfate
    - c. Pre-operative check list
    - d. organization and sequencing of nursing actions
4. Identify criteria for evaluation of the safety and effectiveness of the pre-operative nursing care plan.

Intra-Operative Phase

1. Identify the role of the circulating nurse in the assessment, planning, implementation, and evaluation to maintain the safety of the patient in the operating room.
2. Describe the effects of the following agents used in producing anesthesia. State differences in post-op care.
    - a. General--barbiturates, fentanyl, ketamine, nitrous oxide, scopolamine, halothane, succinylcholine.
    - b. Spinal/Epidural-- Lidocaine, Procaine
    - c. Regional-- Lidocaine, Procane
    - d. Local-- Nupercaine, Lidocaine, Procaine

3. Demonstrate the ability to safely perform:
    a. using communication skills to reduce patient anxiety.
    b. opening sterile packages to make a sterile field.
    c. adding sterile supplies to a sterile field
    d. surgical scrub-- self
    e. open and closed gloving
    f. donning gown-- self; holding gown for surgeon.
    g. observe surgery-- scrubbed
4. Evaluate the condition of the patient immediately prior to his discharge from the operating room.
5. Assist with transfer to the recovery room

Post-operative phase

1. Identify the components necessary to assess the post-operative patient based upon:
    a. the patient's ability/inability to maintain his basic needs PERSON.
        (1) recovery room period
            (a) environment
            (b) primary goals of nursing care
            (c) data necessary to provide safe nursing care.
            (d) criteria for discharge
        (2) post-recovery room period
    b. commonly occurring post-operative problems
        (1) recovery room period
        (2) post-recovery room period
2. Utilize appropriate nursing principles in planning care for a patient experiencing stressors of the post-operative period.
    a. recovery room period
    b. post-recovery room period
3. Demonstrate the ability to safely perform the following nursing skills/actions to assist the post-surgical patient to maintain PERSON.
    a. wound assessment and management
        (1) distinguish among the four types of wounds.
        (2) assess wound healing based on the underlying physiology.
    b. application of heat and cold
    c. respiratory skills
    d. pain management
    e. accurately record data and actions
4. Discuss topics which nurses utilize in patient teaching with patients experiencing the stressors of surgery.
5. State criteria for evaluation and how data will be used to modify the nursing care plan.
6. Discuss the concept of discharge planning.
    a. data necessary for effective discharge planning.
    b. availability of community resources for support/assistance of the patient in the home setting.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 347-413, 1545-1546

2. Williams, Sue Rodwell Essentials of Nutrition and Diet Therapy 4th Ed. St. Louis: C.V. Mosby Co. 1986 pp. 509-512

3. Nursing '86 Drug Handbook Springhouse, PA: Springhouse Corp. 1986

4. Fraulini, Kay and Daniel Gorski "Don't Let Perioperative Medications Put You in a Spin" Nursing '83 Dec. 1983 Vol. 13, No. 12 pp. 25-30

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V.Mosby Co. 1987 pp. 443-520

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer.

1. Food and water are usually withheld beginning at midnight of the surgical day. However, if necessary, water may be given up to:

   a. 8 hrs. before surgery
   b. 6 hrs. before surgery
   c. 4 hrs. before surgery
   d. 2 hrs. before surgery

2. The purpose of pre-operative skin preparation is to:

   a. reduce the number of microorganisms
   b. remove all resident bacteria
   c. render all skin sterile
   d. accomplish all the above

3. An example of a preanesthetic medication that is prescribed to reduce respiratory tract secretions, is a (an):

   a. anticholinergic
   b. barbituate
   c. opiate
   d. skeletal muscle relaxant

4. The nurse should know that postoperatively, a general anesthetic would be primarily eliminated by the :

   a. kidneys
   b. lungs
   c. skin
   d. all the above listed routes

5. The major disadvantage of nitrous oxide is its': ability to cause:

   a. hypertension
   b. hypoxia
   c. liver damage
   d. nausea and vomiting

6. A major nursing intervention after spinal anesthesia would be to:

   a. assess vital signs
   b. document the time and amount of the first post-operative voiding.
   c. log roll the patient from side to side for the first eight hours postoperatively.
   d. record the time when sensation returned to the toes.

7. Chief, immediate postoperative hazzards are:

   a. infection and septicemia
   b. pulmonary congestion and pneumonia
   c. shock and hypoxemia
   d. venous stasis and thrombophlebitis

8. The most serious cause of postoperative restlessness is:

   a. body position
   b. hemorrhage
   c. pain
   d. urinary retention

9. A nurse wants to document the presence of granulation tissue in a healing wound. She would describe the tissue as:

   a. necrotic in appearance and hard in texture.
   b. pale in appearance, yet able to balance with digital pressure.
   c. pink to red in color with a soft texture that bleeds easily.
   d. white in color with long, thin areas of scar tissue.

10. A wound is suspected of being infected if a temperature elevation occurs postoperatively:

   a. within the first 24 hrs.
   b. between 24 and 48 hrs.
   c. in 1 to 3 days
   d. in 4 to 7 days

ANSWERS: 1. C, 2. A, 3. A, 4. B, 5. B, 6. D,
7. C, 8. B, 9. B, 10. D

The Nursing Process as it Applies to the Patient Experiencing Stressors of Infection.

A. INTRODUCTION:

The submodule examines the stressor of infection, the types of infection, the infectious process, and the nursing process applied to a patient experiencing the stressors of infection. The mechanisms of the immune system will also be discussed.

B. TERMINOLOGY LIST

- **Epidemiology**
- **Epidemic**
- **Pandemic**
- **Endemic**
- **Incidence**
- **Prevalence**
- **Infection**
- **Inflammation**
- **Chemical mediators**
- **Exudate**
  - **types**
  - **serous**
  - **fibrinosis**
  - **catarrhal**
  - **purulent or suppurative**
  - **hemorrhagic**
- **Keloid**
- **Bacteria**
- **Fungus**
- **Virus**
- **Leukocyte**
- **Thymus gland**
- **Active immunity**
- **Passive immunity**
- **Antigen**
- **Antibody**
- **T-cells**

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Discuss the immune process of antigen-antibody interaction.
2. Explain the infectious disease process
3. Compare inflammation and infection
4. Identify the components necessary to assess a patient experiencing the stressors of infection based upon:
    a. discussion of commonly occurring signs and symptoms of infection.
        (1) local
        (2) systemic
    b. stating the clinical manifestations of the following major classifications of infections.
        (1) bacteria:
            (a) staphylococcus
            (b) streptococcal
            (c) salmonella
            (d) botulism
        (2) viral
        (3) fungal
    c. explanation of the common medical management utilized to assist the patient experiencing the stressor of infection.
        (1) treatment:
            (a) positioning
            (b) hot and cold applications
            (c) incision and drainage
            (d) hypothermia
        (2) diet therapy:
            (a) high calorie diet
            (b) fluid ingestion
            (c) increased protein diet
        (3) explain the actions, side effects, and toxic effects of the following classes of anti-infective and antipyretic drugs:
            (a) antibiotics: penicillins, erythromycins, tetracyclines, cephalosporins, chloramphenicol, clindamycin, lincomycin, polymyxins, aminoglycosides.
            (b) antifungal agents
            (c) sulfonamides
            (d) sulfones
            (e) antiviral drugs
            (f) antipyretic drugs: salicylates, para-aminophenol derivates.
    d. the impact of the stressors on PERSON
5. Discuss the following diagnostic tests as they relate to the identification of infection:
    a. WBC:
        (1) leukocytosis
        (2) differential WBC (granulocytes)
        (3)sedimentation rate

  - b. gram stain
  - c. blood, sputum, throat, urine and wound culture and sensitivity.
  - d. spinal fluid and bone marrow aspirations

6. Discuss nursing responsibilities/actions related to above tests and infectious disease reporting.
7. Identify nursing goals in the care of the patient with infection (using the patient with AIDS as an example).:
   - a. to assist in identifying the etiologic agent
   - b. to control infection in patient
   - c. to prevent spread of infection to others
   - d. to provide appropriate support of PERSON
   - e. to provide symptomatic relief
   - f. to protect exposed individuals and public against infectious illness.
8. Discuss the components of a nursing plan of care for a patient experiencing the dysfunction of infection.
9. Discuss the role of the infection control nurse/ committee.
10. Discus the concepts of obstruction, hypertrophy, atrophy, hyperplasia and metaplasia.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth *Textbook of Medical-Surgical Nursing* 5th Ed. J.B. Lippincott 1984 pp. 1477-1527, 1107-1114

2. LaCamera, Deborah J., Henry Masur and David K.Henderson "The Acquired Immunodeficiency Syndrome" *Nursing Clinics of North America*, Philadelphia: W.B. Saunders, March, 1985 pp. 241-256

3. *Nursing '86 Drug Handbook:* Springhouse, PA: Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. *Medical-Surgical Nursing* St. Louis: C.V.Mosby Co. 1987 pp. 277-297

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer.

1. Nosocomial is a term referring to infections that are:

   a. acquired during a hospital stay
   b. a duration of greater than 1 month
   c. resistant to most antibiotics
   d. managed within a hospital by isolating the patient.

2. Acquired Immune Deficiency Syndrome (AIDS) is a:

   a. condition of unknown etiology
   b. disorder of immunoregulation
   c. syndrome associated with high mortality
   d. condition consistent with all the above

3. The most frequent etiologic agent in hospital-acquired infections is:

   a. Escherichia coli
   b. Klebsiella
   c. Proteus
   d. Psuedomonas

4. For the tubercle bacilli to multiply and initiate a tissue reaction in the lungs, it must be deposited is:

   a. the alveoli
   b. the bronchi
   c. the trachea
   d. all the above tissues

5. With severe tetanus infection, the most important nursing intervention is:

   a. administering tetanus immune globulin several hours before wound debridement.
   b. assessing respiratory function
   c. evaluating fluid and electrolyte status
   d. managing a quiet environment

6. Gas gangrene is caused by a species of gram-positive clostridia that can be treated by:

   a. chemotherapy
   b. hyperbaric oxygenation
   c. surgery
   d. all the above

7. For nursing care measures, it is important to remember that a patient with rabies harbors the virus in his:

   a. blood
   b. respiratory tract
   c. saliva

8. Trichinosis, a roundworm, is acquired mainly from:

   a. consumption of infected meat
   b. inhalation of airborne spores
   c. person-to-person contact
   d. skin trauma with contaminated soil

9. The primary cells responsible for recognition of foreign antigens are:

   a. leukocytes
   b. lymphcytes
   c. monocytes
   d. reticulocytes

10. Interferon is a lymphokine that exerts its' effect by:

   a. increasing vascular permeability
   b. inhibiting the growth of certain antigenic cells.
   c. stopping the spread of viral infections
   d. suppressing the movement of macrophages

ANSWER: 1. A, 2. D, 3. A, 4. A, 5. B, 6. D, 7. C,
8. A, 9. B, 10. C

SUBMODULE III

Nursing Process as it Applies to Care of the Patient Experiencing Stressors of Common Disorders of the Skin.

A. INTRODUCTION:

This submodule addresses common diagnostic procedures for assessment, common treatment modalities, and nursing interventions in caring for the patient experiencing common disorders of the skin.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess the patient experiencing the stressor of common disorders of the skin based upon:
    a. an explanation of the altered anatomy and physiology of the skin:
        (1) acne vulgaris
        (2) pyodermia
            (a) folliculitis
            (b) furuncles
            (c) carbuncles
        (3) herpes simplex
        (4) herpes zoster
        (5) dermatitis
        (6) psoriasis
        (7) cancer of the skin
    b. a discussion of the pathophysiology involved in common disorders of the skin:
        (1) etiology/predisposing factors
        (2) signs and symptoms
        (3) complications
    c. an explanation of the principles, physiological and psychological, of nursing care related to common diagnostic procedures.
    d. an explanation of the common medical management utilized to assist the patient with common disorders of the skin:
        (1) medications: corticosteroids, antibiotics, antihistamine, sedatives, tranquilizers, analgesics, antineoplastics.
        (2)surgery: wide excision
        (3) radiation therapy: external and sealed source.
        (4) diet therapy: elimination diets
    e. an identification of psychosocail aspects of common skin disorders.
    f. the impact of the stressors of common skin disorders on PERSON.

2. Identify the nursing principles appropriate in planning care for the patient experiencing stressors of common skin disorders.
3. Identify the appropriate interventions/skills in meeting the needs of the patient experiencing common disorders of the skin.
    (1) pre-and post operative care
    (2) wet dressings
    (3) therapeutic baths
    (4) topical medications
4. Discuss topics which nurses may utilize in patient teaching to the patient experiencing stressors of common skin disorders.
5. State the factors to consider when evaluating nursing care.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth
   Textbook of Medical-Surgical Nursing 5th Ed.
   Philadelphia: J.B.Lippincott Co. 1984
   pp. 1159-1173, 1177-1180, 1182-1188

2. Nursing '86 Drug Handbook Springhouse, PA:
   Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J., and Long, B.C. Medical-Surgical Nursing
   St. Louis: C.V.Mosby Co. 1987 pp. 1945-1955

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in classroom discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and choose the best answer.

1. The etiology of acne vulgaris appears to be:

    a. bacterial
    b. generic
    c. hormonal
    d. an interplay of all the above

2. Management of folliclar disorders would include all the following EXCEPT:

    a. cleansing of the skin with an antibacterial soap to prevent spillage of bacteria to adjacent tissues.
    b. rupture of the boil or pimple to release the pus
    c. systemic antibiotic to treat the infection
    d. warm moist compresses to increase resolution of the furuncle or carbuncle.

3. Herpes Zoster (shingles) is:

   a. a varicella zoster viral infection related to chicken pox.
   b. an inflammatory condition that produces vesicular eruptions along nerve pathways.
   c. manifested by itching, tenderness and pain
   d. characterized by all the above

4. Tinea capitis (ringworm of the scalp), can be identified by the presence of:

   a. papules at the edges of inflamed patches
   b. circular areas of redness
   c. scaling and spots of baldness
   d. all the above

5. Psoriasis is an inflammatory dermatosis that results from:

   a. a superficial infection with Staphylococcus aureus.
   b. dermal abrasion
   c. epidermal proliferation
   d. excess deposition of subcutaneous fat

6. The characteristic lesion of psoriasis is a :

   a. circular patch covered with selver scales
   b. cluster of pustules
   c. group of raised vesicles
   d. pattern of bullae that rupture and form a scaley crust.

Match the descriptions of specific skin lesions in COLUMN II with their associated type listed in COLUMN I.

PART I: COLUMN I

1. ___ bulla
2. ___ crusts
3. ___ macule
4. ___ nodule
5. ___ wheal

COLUMN II

a. a covering formed from serum drying on the skin.
b. a large vesicle or blister greater than 1 cm in diameter.
c. a non-elevated discoloration of the skin.
d. a raised solid lesion that is deeper and larger than a papule.
e. a transient elevation of the skin caused by edema of the dermis and capillary dilatation.

PART II: COLUMN I

6. ___ papule
7. ___ plaque
8. ___ pustule
9. ___ scales
10. ___ vesicle

COLUMN II

a. a lesion that contains pus
b. a small elevation of the skin that is filled with clear liquid.
c. a solid elevated lesion on the skin or mucous membrane that is greater than 1 cm in diameter.
d. a solid elevated papule lesion that is less than 1 cm in diameter.
e. heaped up horney layers of dead epidermis.

ANSWERS: MULTIPLE CHOICE: 1. D, 2. B, 3. D, 4. D, 5. C, 6. A

MATCHING: PART I: 1. B, 2. A, 3. C, 4. D, 5. E,

111 PART II: 6. D, 7. C, 8. A, 9. E, 10. B

SUBMODULE IV

INTRAVENOUS THERAPY

A. INTRODUCTION:

This submodule examines the role of the nurse in intravenous therapy. It includes establishing, maintaining, and discontinuing both the administration of fluids and drugs by the intravenous route.

B. TERMINOLOGY LIST:

1. cannula
2. K.V.O./ T.K.O.
3. I.V.
4. piggyback
5. heparin lock
6. I.V. push
7. I.V. bolus
8. hypodermoclysis

9. winged-tip needle
10. chevron
11. aseptic
12. venipuncture

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of intravenous therapy based upon:
    - a. description of the psychological aspects of the patient receiving IV therapy.
    - b. identification of the ethical/legal considerations
        - (1) legal basis for the nurse to administer intravenous therapy.
        - (2) malpractice and negligence in regard to intravenous administration.
    - c. discussion of the advantages and disadvantages of IV therapy.
    - d. description of the types of fluids given intravenously.

2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of IV therapy:
    a. identify how the nurse can assist the patient to cope with the stressor of IV therapy (including theuncooperative patient).
    b. discuss how to prepare for establishing an intravenous line:
        (1) the physician's order
        (2) setting up the fluid system
        (3) selecting the type of cannula
        (4) selecting the venipuncture site
    c. describe how to establish and maintain the flow rate:
        (1) factors affecting flow rates
        (2) calculation of flow rates
        (3)intravenous drug therapy
    d. identify the complications of intravenous therapy associated with:
        (1) venipuncture
        (2) intravenous infusion
        (3) intravenous drug therapy
    e. state the nursing interventions when a patient develops complications of intravenous therapy.
    f. discuss the principles of IV drug therapy:
        (1) factors affecting response of IV drugs
        (2) untoward drug response
        (3) preparation of admixtures
        (4) sterility
        (5) prevention of incompatibilities
        (6) accurate dosage
    g. discuss the nursing responsibilities in removing an intravenous line.

3. Demonstratethe ability to safely perform the following skills/interventions:
    a. insertion and maintenance of an intravenous line:
        (1) skin preparation
        (2) inserting both needle and plastic catheter
        (3) tubing change
        (4) site care
    b. establish and maintain flow rate
    c. use of controllers and infusion pumps
    d. preparation and administration of IV drug therapy
    e. insertion and maintenance of Heparin Lock:
        (1) Heparin flush
    f. discontinue IV therapy
    g. demonstrate appropriate charting regarding IV therapy.
4. Discuss topics which nurses utilize in patient teaching.
5. Utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth
   Textbook of Medical-Surgical Nursing 5th Ed.
   Philadelphia: J.B.Lippincott Co. 1984 pp. 152-162
2. Gahart, Betty Intravenous Medications: 4th Ed.
   St. Louis: C.V.Mosby Co. 1985
3. AUDIOVISUALS:
   - a. IV Therapy Films, WB 354 193 program
   - b. 1983- entrie series 985-991

SUPPLEMENTAL: Any Intravenous Therapy manual

1. Smith, Sandra and Donna Duell Clinical Nursing Skills
   Los Altos, CA: National Nursing Review 1985
   pp. 729-755

E. LEARNING ACTIVITIES:

1. Prior to class, read and view the materials listed under Learning Resources.
2. Participatein lecture/discussion
3. Complete Clinical Focus
4. Complete Learning Laboratory objectives for Intravenous Therapy.

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer.

1. Mrs. Sanford's IV site is swollen, red, painful, and cold to touch. What does this indicate?
   - a. infection at the site
   - b. inflammation of the vein
   - c. infiltration of the IV solution
   - d. hypersensitivity reaction
2. When compared with atomospheric pressure, the air vent on a bottle containing solution that will be administered intravenously allows the pressure within the bottle to remain at:
   - a. less than atmospheric pressure
   - b. more than atmospheric pressure
   - c. the same as atmospheric pressure

3. Which of the following factors is least important for the nurse to consider when selecting a vein for intravenous infusion?

   a. the condition of the vein
   b. thetype of fluid to be infused
   c. the anticipated duration of the infusion
   d. theamount of drug added to the infusion

4. If all the following veins are available for the nurse to use when starting intravenous therapy, which vein should she consider LAST as a site of entry?

   a. the basilic vein
   b. the cephalic vein
   c. the median cubital vein
   d. a dorsal melocarpal vein

5. A nurse has trouble visualizing a vein for entry after she has applied a tourniquet to the patients'arm. After removing the tourniquet, which of the following technique is recommended to help distend the veins?

   a. apply heat over the veins
   b. apply cold over the veins
   c. apply pressure over the veins
   d. apply friction over the veins

6. If the physician orders 125ml of solution to be given intravenously every hour, and the drop factor for the equipment is 15 drops per ml, the number of drops to be given each minute is:

   a. 20 drops
   b. 32 drops
   c. 44 drops
   d. 60 drops

7. Which situation shows that no infiltration is present?

   a. blood returns when the bottle is lowered
   b. fluid continues to drip
   c. the patient does not complain of pain
   d. the tissue is not red or warm

8. You add two medications to an IV bottle and note that the solution becomes cloudy. The proper action and correct rationale is:

   a. do not hang the bottle. Clouding indicates a reaction has taken place, and the substance should not be administered.
   b. hang the bottle. There is no danger if particles are not visible.
   c. hang the bottle, but put an inline filter between the bottle and the patient. Any particle will be stopped.
   d. that the clouding may or may not indicate a problem. Check with the pharmacist and do as instructed.

9. The order for intravenous fluids reads, "1000ml 5% glucose is water to run 10 hours". Determine the number of drops per minute the IV should run if the administration set delivers 15 gtts/min:

   a. 20 drops/min
   b. 25 drops/min
   c. 30 drops/min
   d. 50 drops/min

8. A, 9. B

SUBMODULE V

Nursing Process as it Applies to the Patient Experiencing Stressorsof Fluid/Electrolyte Imbalance.

A. INTRODUCTION:

This submodule examines the major concepts of fluid/electrolyte imbalance and the use of the nursing process to assist patients experiencing these stressors.

B. TERMINOLOGY LIST

1. osmotic pressure
2. osmolarity
3. osmolality
4. colloid osmotic pressure
5. fluid hydrostatic pressure
6. hyponatremia
7. hypernatremia
8. hypokalemia
9. hyperkalemia
10. hypocalcemia
11. hypercalcemia
12. hypomagnesemia
13. hypermagnesemia
14. isotonic
15. hypertonic
16. hypotonic
17. baroreceptors
18. hypovolemia
19. hypervolemia
20. proteinate
21. plasma proteins
22. sodium pump
23. hypoprotenemia
24. lymphedema
25. anasarca
26. acites
27. Chvostek's Sign
28. Trousseau's Sign

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Discuss the functions of the following electrolytes on the body under "normal" conditions:
   a. sodium
   b. potassium
   c. calcium
   d. magnesium
2. Compare the concentrations of the above electrolytes between cellular and extracellular fluids.
3. Explain how waterbalance is maintained under "normal" conditions.
4. Discuss the role of plasma proteins in body water distribution.
5. Identify factors that influence hormones which control fluid/electrolyte balance:
   a. antidiuretic hormone (ADH)
   b. aldosterone
   c. parathyroid hormone (PTH)
6. Apply the concept of tonicity to fluid/electrolyte balance:
   a. isotonic
   b. hypotonic
   c. hypertonic
7. Explain the relationship of the following terms to maintainance of fluid/electrolyte balance:
   a. fluid pressure
   b. oncotic pressure
   c. filtration pressure
8. Explain the physiology of the formation of edema
9. Discuss the effect of edema on fluid/electrolyte transport.
10. Identify the major categories of fluid/electrolyte imbalances.
11. Discuss the following diagnostic tests/evaluation proceduresas they relate to stressors of fluid/electrolyte imbalance:
    a. daily weights
    b. blood tests
    c. urine tests
12. Identify the components necessary to assess a patient experiencing stressors of fluid/electrolyte imbalances based upon:
    a. explanation of the physiology of the following imbalances:
       (1) extracellular volume disturbances:
          (a) excess
          (b) deficit
       (2) osmolality disturbances
       (3)combined volume and osmoality disturbances
       (4) ionic disturbances

   b. discussion of the above imbalances in relation to:
      (1) etiology
      (2) signs and symptoms
      (3) usual medical management:
         (a) fluid regulation
         (b) diet therapy
         (c) medications
   c. identification of patients at risk
   d. impact of the stressors on PERSON

13. Identify the nurse's role in prevention/early detection of fluid/electrolyte imbalances.
14. Discuss the components of a nursing plan of care to assist the patient experiencing these stressors.
15. Discuss topics which nurses utilize in patient teaching.
16. Utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadlephia: J.B. Lippincott Co. 1984 pp. 135-147, Table 9-4, pp. 153-154

2. Folk-Lighty, Marie "Solving the Puzzles of Patients' Fluid Imbalances" Nursing '84 Feb. pp. 34-41

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 215-252

E. LEARNING ACTIVITIES:

1. Prior to class, read the materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/ POST-TEST:

Match the symptomatology listed in Column II with its associated fluid and/or electrolyte imbalance listed in Column I.

Column I	*Column II*
1. ____ calcium deficit in extracellular fluid	a. carpopedal spasm and tetany
2. ____ calcium excess in extracellular fluid	b. muscle hypotonicity and flank pain
3. ____ extracellular fluid volume deficit	c. oliguria and weight loss
4. ____ extracellular fluid volume excess	d. positive Chvostek's sign
5. ____ magnesium deficit in extracellular fluid	e. crackles and dyspnea
6. ____ potassium deficit in extracellular fluid	f. chronic weight loss and fatigability
7. ____ potassium excess in extracellular fluid	g. fingerprinting on the sternum
8. ____ protein deficit in extracellular fluid	h. irritability and intestinal colic
9. ____ sodium deficit in extracellular fluid	i. rough dry tongue and thirst
10. ____ sodium excess in extracellular fluid	j. soft, flabby muscles; weakness

George is 88 years old and is suffering with congestive heart failure. He was admitted to the hospital with a diagnosis of extracellular volume excess. He was frightened, slightly confused, and dyspneic on exertion.

11. During the assessment process, the nurse would expect to identify all of the following *EXCEPT*
    - a. a full pulse.
    - •b. decreased central venous pressure.
    - c. edema.
    - d. neck vein distention.
12. A manifestation of extracellular volume excess would be
    - a. altered serum osmolality.
    - b. hyponatremia.
    - c. increased hematocrit when volume excess develops quickly.
    - •d. rapid weight gain.

-3. A nursing plan of care should include
    - a. auscultating for abnormal breath sounds.
    - b. inspecting for leg edema.
    - c. weighing the patient daily.
    - •d. all of the above.

14. Nursing intervention for George would include all of the following *EXCEPT*
    - a. administering diuretics, as ordered, to help remove excess fluid.
    - •b. assisting the patient to a recumbent position to minimize his breathing effort.
    - c. inspecting for sacral edema to note the degree of fluid retention.
    - d. teaching dietary restriction of sodium to help decrease water retention.

Harriett is 30 years old and has been admitted to the burn treatment center with full-thickness burns over 30% of her upper body. Her diagnosis is consistent with extracellular volume deficit.

15. The major indicator of extracellular volume deficit can be identified by assessing for
    - a. a full and bounding pulse.
    - •b. a drop in postural blood pressure.
    - c. an elevated temperature.
    - d. pitting edema of the lower extremities.
16. Manifestations of extracellular volume deficit would include all of the following *EXCEPT*
    - a. collapsed neck veins.
    - •b. decreased serum albumin.
    - c. elevated hematocrit.
    - d. weight loss.
17. A nursing plan of care would include assessing blood pressure with the patient in the supine and upright positions. A diagnostic reading that should be recorded and reported would be
    - •a. supine 140/90; sitting 120/80; standing 110/70.
    - b. supine 140/90; sitting 130/90; standing 130/90.
    - c. supine 140/90; sitting 140/85; standing 135/85.
    - d. supine 140/90; sitting 140/90; standing 130/90.

18. Nursing intervention for Harriet would include all of the following EXCEPT:

    a. monitoring urinary output to assess kidney perfusion
    b. placing the patient in the Trendelenburg position to maximize cerebral blood flow.
    c. positioning the patient flat in bed with legs elevated to maintain adequate circulating volume.
    d. teaching leg exercises to promote venous return and prevent postural hypotension when the patient stands.

8. F, 9. G, 10. I, 11. B, 12. D, 13. D, 14. B,
15. B, 16. B, 17. A, 18 B

MODULE IV

THE REST, COMFORT, ACTIVITY, REGULATORY NEED

The Rest, Activity, Comfort, Sleep, and Regulatory Need

Prior to the beginning of this module, turn to APPENDIX II and review all the listed objectives. The student is responsible for all the knowledge and skills listed in the objectives.

A. INTRODUCTION:

This module examines the rest, activity, sleep, regulatory and comfort need as defined by the Austin Community College Associate Degree Program: "The need for regulation of phusiological processes, integrated movement and rest of body parts, sleep and freedom from discomfort." This module is divided into the following submodules:

I. The Nursing Process as it Applies to the Patient Experiencing the Stressor of Pain.

II. The Nursing Process as it Applies to the Patient Experiencing Stressor of Cancer.

III. The Nursing Process as it Applies to the Patient Experiencing the Stressor of Cancer Treatment.

IV. The Nursing Process as it Applies to the Stressors of Aging and the Patient With Organic Mental Disease.

V. The Nursing Process as it Applies to the Patient with Diabetes.

At the completion of this module, the student should be able to:

I. Apply the Nursing Process to an Adult Patient Experiencing the Stressor of Pain.

II. Apply the Nursing Process to an Adult Patient Experiencing the Stressor of Cancer.

III. Apply the nursing process to an Elderly Patient and a Patient Experiencing the Stressor of Organic Mental Disease.

IV. Apply Teaching/learning Principles When Providing Adult Patients with Stratigies for Maintaining Their Needs for Rest, Comfort, Activity and Regulation.

V. Apply the Nursing Process to Aid an Adult Patient Experiencing Diabetes.

VI. Functions as a Member of the Nursing Team

VII. Recognize the Relationship Between Learning and Professional Growth by Assuming the Responsibility of Meeting Submodular Objectives.

SUBMODULE I

The Nursing Process as it Applies to the Patient Experiencing the Stressor of Pain.

A. INTRODUCTION:

This submodule explores the stressor of pain and its' impact upon every aspect of PERSON.

B. TERMINOLOGY LIST

Prickling pain

Burning pain

Aching pain

Referred pain

Phantom pain

Acute pain

Chronic pain

Enkephalins

Endorphins

Biofeedback

Dorsal-column stimulation

Pain tolerance

Pain threshhold

Radiating pain

Placebo

Transcutaneous nerve stimulation

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of pain based upon:
    a. explanation of the phases of the pain experience
        (1) anticipation of pain
        (2) sensation of pain
        (3) aftermath of pain
    b. comparison of acute and chronic pain
    c. description of the theories of pain transmission
        (1) specific theory
        (2) pattern theory
        (3) gate control theory
    d. explanation of the use of placebos as related to the theories of pain transmission.

- e. discussion of the factors influencing an individual's response to pain including:
    - (1) socio-cultural factors
    - (2) past pain experiences
    - (3) other
- f. identification of the role of endorphins
- g. discussion of the factors which may influence a nurse's ability to provide care to the patient with pain.
- h. explanation of the following methods of pain relief:
    - (1) nerve blocks
    - (2) neurosurgical procedures
    - (3) dorsal column and transcutaneous stimulation
    - (4) acupuncture
    - (5) hypnosis/meditation/altered state of consciousness
    - (6) relaxation/distraction/guided imagery
    - (7) cutaneous stimulation
    - (8) biofeedback
    - (9) drug threapy-- (physiological actions and nursing implications):
        - (a) narcotic and analgesics-- codeine sulfate, levorphanol tartrate (Levo-Dromoran), morphine sulfate; oxycodone terephthalate (Percodan), meperidine hydrochloride (Demerol).
        - (b) narcotic antagonists-- levallorphan tartrate (Lorfan), naloxone hydrochloride (Naloxone).
        - (c) nonarcotic analgesics-- acetylsalicylic acid (aspirin, etc.), acetaminophen (Tylenol), propoxyphene hydrochloride (Darvon).
- i. explanation of the role of the pain centers
- j. impact of the stressors of pain on PERSON

2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of pain.
3. Compare and contrast care planned for a patient with acute and chronic pain.
4. Discuss topics which nurses utilize in patient teaching
5. Utilize the evaluation data to identify modifications in NCP

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. J.B. Lippincott Co. 1984 pp. 278-294

2. Narrow, Barbara W. and Kay B. Buschle Funadmentals of Nursing Practice John Wiley & Sons, 1982 pp. 543-550

3. West, Anne "Understanding Endorphins: Our National Pain Relief System" Nursing '81 Feb. 1981 pp. 50-53

4. Nursing'86 Drug Handbook Springhouse, PA: Springhouse Corp.1986

5. FILMSTRIPS:
    - a. WL 704 N285 The Nature of Pain- PART I (17 min) Costa Mesa California Concept Media, 1973
    - b. WL 704 N285 The Nature of Pain- PART II (19 min) Costa Mesa California Concept Media, 1973

6, ATTACHMENT- Assessment of the Nature of Pain

SUPPLEMENTAL:

1. Phipp, W.C. and Long, C. Medical-Surgical Nursing St. Louis: C.V. Mosby 1987 pp. 301-308
2. Smith, Sandra and Donna Duell Clinical Nursing Skills Los Altos, CA: National Nursing Review 1985 pp. 814-824

E. LEARNING ACTIVITIES:

1. Prior to class, read and review materials listed under Learning Resources.
2. Participate in classroom lecture/discussion
3. Prepare Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer.

1. Acute pain may be described as all the following EXCEPT:
   a. brief in duration
   b. mild in intensity
   c. prolonged in duration
   d. severe in intensity
2. During pain assessment, a patient states that he has chronic intermittent episodes of pain with pain-free periods. The nurse correlates this description to a diagnosis of:
   a. chronic benign pain
   b. chronic intractable benign pain syndrome
   c. pain with obvious ongoing peripheral pathology
   d. recurrent acute pain
3. Nurses need to be aware that behavioral response most frequently overlooked occur during that phase of pain experience known as the:
   a. aftermath
   b. anticipation
   c. duration
   d. sensation
4. Physiological indicators of acute pain would include all the following EXCEPT:
   a. diaphoresis
   b. dilated pupils
   c. lowered blood pressure
   d. tachycardia

5. An incorrect statement about endorphines is that:

   a. their levels are positively correlated to the perception of painful experiences.
   b. their release inhibits the transmission of painful impulses.
   c. they are composed of amino acids joined by peptide bonds.
   d. they are found in heavy concentrations in the central nervous system.

6. A nursing measure(s) to manage anxiety during the acticipatory phase of the pain experience would include:

   a. focusing the patient's attention on another problem.
   b. increasing knowledge about the impending pain and associated relief measures.
   c. using an anxiety-reducing technique such as desensitization.
   d. all the above

7. A prevention approach to pain relief means that analgesic medications are given:

   a. before the pain becomes severe
   b. before the pain is experienced
   c. when the pain is at its' peak
   d. when the level of pain tolerance has been exceeded.

8. A prevention approach to pain management using drug therapy usually:

   a. helps prevent tolerance to analgesics
   b. provides patient with longer pain-free periods
   c. results in smaller doses of medication needed to alleviate pain.
   d. results in all the above

9. For pain assessment, a nurse should:

   a. believe a patient when he states that he has pain.
   b. doubt pain exists when no physical origin can be identified.
   c. realize that patients frequently imagine and state that they have pain without actually feeling painful sensations.
   d. all the above

ANSWERS: 1.C, 2.D, 3.A, 4. C, 5.A, 6.D, 7.B, 8.D, 9.A

ASSESSMENT OF THE NATURE OF PAIN

From Sorensen and Luckmann's Basic Nursing, 1979

1. History of the origin and occurence of pain.
   a. When did it begin?
   b. Has it interfered with sleep, other vital functions, or the performance of duties?
   c. Is it a factor in litigation or could it be related to malingering?

2. Localization of the pain in the body.
   a. In what area or areas of the body is the pain felt? Do the areas of pain differ under differing circumstances?
   b. If several parts of the body are painful, do the pains occur simultaneously and are they dependent on one another?
   c. Is the pain unilateral or bilateral? If bilateral, is it present in identical areas on the two sides of the body? (Pain such as thalamic pain can be located to the whole of one side of the body.)

3. Extension, radiation, and depth: A description of the "size and shape" of the pain.
   a. Does it extend diffusely over a large area or can it be pinpointed? Is the area poorly or well defined?
   b. Does the pain originate in a definite area and then radiate to other areas? Both the point at which the pain starts and its radiation are important in diagnosis and treatment.
   c. Can the pain be described in terms of three dimensions, e.g., width, length, and depth? Generally, the patient is able only to determine whether the pain is localized to the skin or to deeper structures. Usually, it is not possible for him to give a more exact description of depth localization.

4. Duration: How the pain occurs in time or its time-relations. Often separate paroxysms of pain are assembled in series. When a patient speaks of the "duration of an attack" he usually means the duration or length of such series.
   a. How long does the pain last?
   b. Is it paroxysmal, intermittent, steady or continuous, rhythmic, throbbing or pulsating? These are some terms commonly used to describe the nature of pain.

5. Onset or pattern: Occurances and character of the attack as a whole.
   a. What time did the pain begin? Is it seasonal? (For example, peptic ulcer pain tends to recur in the spring and fall, possible due to changes in diet.)
   b. Do any events, activities, or persons precipitate the pain? Can times or patterns be identified when pain is anticipated to occur? Is a stimulus, precipitating factor, or trigger zone identifiable? Is pain associated with changes in position or the weather?
   c. What factors alter the character of the pain, increase, reduce, or otherwise modify it?

d. Does an attack begin gradually or acutely? Does the pain reach a "peak" and then rapidly diminish after reaching maximum? Does the pain have a "plateau" at which it remains at a constant intensity for a period of time? Between attacks is the patient without pain, or other symptoms, or does he have mild pain, paresthesia, or other symptoms?

e. Have changes occured in the pain pattern or in the patient's life, e.g., weight loss, stress, working conditions, or way of life?

6. Day pains: Some pains usually occur during the day since they are made worse by mental and physical activities. Examples are: Loco-motor pains such as rheumatism, sciatica, and flat foot; eye pain; and morning sinus pain caused by no chance for sinuses to drain at night.

7. Night pains: Pains occuring at night, particularly if they awaken the patient, are typically characteristic of organic disease (as opposed to psychogenic pains). However, some psychogenic pains may occur at night if the patient has insomnia and if, freed from the distractions of the day, he becomes fearful and anxious.

Colic and ulcer pains typically occur at night, since at night our bodies are largely governed by autonomic nerve control, and therefore, it is the time of vagus and parasympathetic activity. Also, because relaxation of protective muscle contractions occurs at night, involuntary movements occur. Thus, the pains of joint disease are mainly nocturnal. The patient whom the nurse finds sleeping well or resting quietly is not likely to be having pain.

Changes or quality of the pain: Is it dull, sharp, shooting? Often the character of pain is dependent on both its localization and its duration. It is not unusual for the character of a pain to alter during its course. The character of pain is often used in the classification of painful conditions, and particular types of pain is associated with special types of attack, e.g., some pains occur in attacks of paroxysms of pain while other pains are dull, constant and boring.

McBride lists the following conditions and bodily areas and the quality of the pain associated with each:

Aneurysmal erosion: boring, pounding

Bones: deep, aching, boring

Muscles: sore, aching

Colic: twisting, gripping, clamping

Angina: compression, constriction, comes on with exertion, great weight, agonizing, impending death.

Pleuritis: stabbing, knifelike, with each breath

Peptic ulcer: burning, sharp, associated with hunger

Tabes: lightning-like, shooting, stabbing

Neuritis: burning, stinging

Neuralgia: sharp, cutting, paroxysmal, intermittent

Causalgia: burning, peculiar stinging

Burns: blisters, superficial skin lesions: burning, smarting, stinging, hot

9. Intensity of the pain must be determined to delineate proper therapy; e.g., morphine would not be given for a mild headache. Because of variable, individual psychologic factors it is often difficult to determine the intensity of pain. Some idea of the intensity can be obtained by noting the patient's physical appearance and whether the pain interferes with his activities.

   a. Does the patient describe the pain as mild, moderate, intense, severe, or excruciating? Such terms indicate intensity.

   b. What is the patient's physical appearance, e.g., grimacing, curled up in bed?

   c. Does the pain interfere with sleep, employment, eating, conversation, and so forth? Does the patient have to go to bed or stay in bed because of his pain?

10. Cessation of a pain is important to note.

    a. When did it stop?

    b. Did it stop suddenly or gradually?

    c. Was anything done to stop it or did it stop spontaneously?

11. Associated symptoms should be assessed. For example: Skin changes (e.g., glossy skin); sensory changes (e.g., numbness); vomiting; photophobia (visual intolerance of light); fever; abnormal glandular secretions (e.g., excessive sweating); and fever.

12. Presumptive etiologic factors. Most patients have a definite opinion about what is causing their pain, and their views about the etiology should always be noted. Hereditary conditions should be considered.

SUBMODULE II

The Nursing Process as it Applies to the Patient Experiencing Stressors of Cancer.

A. INTRODUCTION:

This submodule examines cancer as a pathophysiologic process, roles of the nurse in cancer prevention, morbidity and mortality rates, diagnostic procedures, and the general goals of the health team in the care of the patient experiencing stressors of cancer.

B. TERMINOLOGY LIST

1.	Cancer cure:	patient without evidence of disease for at least five years after diagnosis
2.	Neoplasia:	an abnormal new growth of tissue which serves no purpose and which can be highly damaging
3.	Benign neoplasm:	an abnormal growth of tissue that is relatively harmless and does not spread to or infiltrate other tissues
4.	Malignant neoplasm:	cancer, an abnormal growth that is always harmful to the body and that may spread, or metastasize, to other tissues far removed from the site of origin
5.	Carcinoma insitu:	a lesion confined to the epithelial tissue (mucosal surface) no invasion or metastasis has occured
6.	Cell cycle:	the interval between the midpoint of mitosis in a cell and the midpoint of the subsequent mitosis in one or both daughter cells
7.	Anaplastic cells:	neoplastic cells that are strikingly deviant from normal cells. They are primitive, embryonic in type and grow into disorganized, irregular cellular nests or sheets.
8.	Differentiation:	in the embryo cells become different from each other as they assume the special functions of the various organs
9.	Metastasis:	the ability of some neoplastic cells to spread from the original site of the tumor to distant organs of the body. It distinguishes malignant from benign growth.
10.	Cachexia:	state of profound poor health almost always produced by cancer--characterized by malnutrition--weight loss, muscle weakness, anorexia, severe depression, acidosis and toxemia. Normally pH 7.35 to 7.45 acidosis is caused by H+ or excessive loss of HCO_3 which can't be corrected by blood, lungs, or kidneys. Toxemia--poisoning; symptoms are fever, diarrhea, vomiting, pulse and respirations or septic shock.
11.	Carcinoma:	a form of cancer that is composed of epithelial cells that tend to infiltrate surrounding tissues and that may eventually metastasize
12.	Sarcoma:	malignant tumor of connective tissue as cartilage, adipose, or fibrous tissue
13.	Carcinogen:	agents (viruses, chemicals, physical irritants or hormones) which can cause malignant changes in normal cells after sufficient exposure
14.	Precancerous lesion:	a lesion which may in time undergo transformation into a cancerous lesion.

	Papanicolaau test:	pap test--an examination of sloughed off cells under a microscope Class I -- normal Class II -- probably normal Class III -- doubtful Class IV -- probably ca-biopsy Class V -- malignant
16.	**Exfoliative cytology:**	pap test microscopic exam of desquameted cells or sloughed off cells--used to examine a pap smear
17.	**Sentinel metastasis:**	metastatic lesion that becomes evident before the primary lesion is detected
18.	**Cancer:**	a large group of diseases characterized by uncontrolled growth and spread of abnormal cells
19.	**Adenoma:**	benign neoplasm that contains glandular cells
20.	**Adenocarcinoma:**	carcinoma arising in glandular tissue
21.	**Fibroid:**	of or relating to fibrous tissue
22.	**Fibroma:**	benign tumor of fibrous tissue
23.	**Leiomyoma:**	benign neoplasm of smooth muscle origin (most common in the uterus)
24.	**Lipoma:**	benign tumor of adipose tissue
	Malignant melanoma:	malignant tumor of pigmented cells called melanoblasts
26.	**Myoma:**	benign tumor of muscle tissue
27. **	**Tumor:**	an abnormal swelling or enlargement and one of the four signs of inflammation. A tumor can result from proliferation of neoplastic cells.
28.	**Nevus:**	benign growth of pigmented cells called melanoblasts
29.	**Oncology:**	the study of tumors
30.	**Papilloma:**	benign tumor of skin or mucus membrane
31.	**Dedifferentiation:**	loss of resemblance to normal differentiated cells
32.	**Parenchyma:**	the major part of the tumor which is nourished and supported by the connective tissue and blood vessels of the stroma

****RESOURCES:**

Luckman and Sorensen. Medical-Surgical Nursing, 2nd ed. W. B. Saunders and Taber's Cyclopedic Medical Dictionary, 13th Ed. F. A. Davis.

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Differentiate between normal and malignant cells
2. Differentiate between benign and malignant tumors in regard to:
   a. mode of growth
   b. rate of growth
   c. metastatic potential
   d. danger to host
   e. injury to host
   f. structure or architecture
3. Identify the morbidity and mortality rates of cancer in the United States.
4. Discuss factors that predispose an individual to the development of cancer.
5. Discuss commonly occuring signs and symptoms
6. Discuss the role of the nurse in prevention/ early detection of cancer.
7. Discuss the following diagnostic tests/procedures relating to cancer:
   a. roentgenographic examinations (x-rays)
   b. computerized tomography (CT scans)
   c. ultrasound examinations
   d. radioisotope uptake scans
   e. diagnostic surgery
   f. Papanicolaou studies
   g. blood tests (CBC, H&H, Lytes)
8. Discuss the nursing responsibilities related to the above procedure.
9. Describe the diagnostic process "staging"
10. Explain how the staging process differs from the classification process.
11. Identify the five (5) most common causes of death in cancer patients.
12. Discuss the general goals of cancer treatment:
    a. reduction of tumor load
    b. destruction of malignant cells
    c. stimulation of body's defenses
    d. psychological support
13. Identify the role of community agencies and programs as support systems for the patient and significant others experiencing the stressors of cancer.
14. Discuss the ethical/legal implications of providing information to patients and significant others experiencing stressors of cancer.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. J.B. Lippincott Co. 1984 pp 297-306, 315-320, 328-333, 337-341.
2. Williams, Sue Rodwell Essentials of Nutrition and Diet Therapy 4th Ed. St. Louis: C.V.Mosby Co. 1986 pp. 535-558
3. Ellison, N.M. "Cancer Quackery-- What to Watch Out For" Drug Therapy July 1980 pp. 87-89 (on reserve in RVS library).
4. Cancer Handout

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby 1987 pp. 329-357

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and choose the best answer

1. The cellular structure which controls/divides cell function is the:
   a. endoplasmic reticulum
   b. golgi apparatus
   c. mitrochondria
   d. nucleus
2. The cellular code for protein synthesis is dependent upon:
   a. arrangement of purines and pyrimidines in DNA
   b. migration of the centrioles during cellular division.
   c. phosphate -sugar linkage in the gene
   d. transfer of chemical energy by the mitrochondira
3. Cells are separated according to their dividing activity (dividing, non-dividing, resting). Continuously dividing cells are found in the:
   a. bone marrow
   b. liver
   c. neurons
   d. thyroid gland

4. Malignant tumors:

   a. are encapsulated
   b. exert pressure on adjacent structures
   c. grow rapidly and infiltrate surrounding tissue
   d. remain localized within a tissue

5. In the United States, cancer as a cause of death, ranks:

   a. first
   b. second
   c. third
   d. fourth

6. Current statistics list survival rates for cancer patients at:

   a. 10 %
   b. 20%
   c. 30%
   d. 40%

7. Excessive exposure to sunlight has been associated with all the following cancers EXCEPT:

   a. basal cell carcinoma
   b. lymphosarcoma
   c. malignant melanoma
   d. squamous cell carcinoma

8. To reduce nitrate intake because of its' possible carcinogenic action, the nurse would suggest that a patient reduce his intake of:

   a. eggs and milk
   b. fish and poultry
   c. ham and bacon
   d. green, leafy vegetables

9. Individuals who combine smoking with drinking alcohol have an increased risk of cancer occurring in the:

   a. esophagus
   b. larynx
   c. mouth
   d. organs mentioned above

10. During all reproduction, the nuclear division that results in the formation of identical genetic material is:

    a. meisosis
    b. metosis
    c. oogenesis
    d. spermatogenesis

ANSWERS: 1. D, 2. A, 3. A, 4. C, 5. B, 6. D, 7. B, 8. C, 9. D, 10. B

CANCER HANDOUT

	Tumors	Benign Tumor	Malignant Tumor
1.	Mode of growth	Enlarges and expands, localized contained in easily excised capsule.	Usually infiltrates surrounding tissues-no capsule.
2.	Rate of growth	Slow, may stop growing for a time.	Rapid, may regress spontaneously
3.	Metastatic potential	None	Common
4.	Danger to host	Good prognosis when removed	Depends on: speed of diagnosis, class of cells, metastisis.
5.	Injury to host	May compress tissues or obstruct vital organs, in glandular tissue may cause hormone secretion.	Always harmful, death, without treatment: disfiguring, function, nutritional imbalance, ulceration, sepsis, hemorrhage, anemia cachexia.
6.	Structure or architecture	In a capsule, cells well differentiated.	Cells poorly differentiated.
		Cells appear adult with mitotic figures absent.	Large number of normal and abnormal mitotic figures.
			Cells-embryonic-nonfunctional

	Type	Normal Cells	Malignant Cells
1.	Controlled cell cycling	Carefully controlled, organ function maintained, cells that die are replaced, no extra cells produced.	Uncontrolled--can keep dividing
2.	Differentiation	In embryo cells become specialized and assume special functions.	More primitive-most not specialized enough to function as normal cells of that type.
3.	Appearance	Normal size, more homogeneous.	Larger with bigger nucleus cells differ substantially from each other--size and shape.
4.	Contact Inhibition	In vitro cells grow in orderly fashion and growth stops when cells make contact with container wall.	Disorganized growth that doesn't stop on contact.
[illegible].	Function	Serve a useful purpose.	Not useful/parasites occupy space. ADDITIONAL: 1. Chromosomal aberration occur as cell matures; 2. Have ability to invade, erode, and metastasize.

Information Related to Bonemarrow Depression for Patients on Chemotherapy

1.	WBC below 4,000 Platelets below 120,000	R.N. calls M.D.--usually chemo dose is reduced by 50%
2.	WBC below 2,500 or 2,000 Platelets below 80,000 or 100,000	R.N. calls M.D.--he usually will give you an order to D/C or hold "chemos".

3. Use strict medical asepsis at all times with a patient receiving chemos.

4. Often reverse isolation is initiated with a WBC below 2,000-3,000.

   (WBC's and Platelets drop before RBC level drops because circulating cells continue to live--problems occur as adult cells die of old age and new cells are not produced by bone marrow.)

5. Symptoms of liver involvement resulting from chemo-abnormal pain, fever, nausea, diarrhea and jaundice.

6. Signs of infection-- temp may be slight (101°F oral is serious) inflammatory process is depressed some redness but pus formation is very limited--so rarely do you see abcess--other signs-mailase, lethargy, pain or discomfort.

Skin Reactions to Radiation Therapy

1. Slow healing occurs because of damage to the rapid growing cells needed for healing.

2. Site scars easily
   symptoms: erythema, desquamation, abnormal pigmentation may result.
   rare: atrophy, talangiectasis, depigmentation of skin sub q fibrosis
   most severe and very rare: skin cancer, necrosis and skin ulcers.

3. Daily site care of patient receiving external radiotherapy.

   a. Keep skin site dry.

   b. Wash with tap H_2O--no soap, use patting action--no rubbing.

   c. No medications, powders, lotions unless ordered by radiologist only--Pantho-derm is often used for dryness.

   d. No heat applications to site, no dressings or tape.

   e. Avoid--exposure to sunlight, site will burn severely and quickly; exposure to cold, site easily damaged.

   f. Don't wash off marks.

   g. If skin at site is okay, can shave with electric razor--no shaving if site is red or tender.

   h. Avoid clothes that rub or irritate--cotton is gentle.

What Do You Tell The Patient About Radiotherapy?

1. Know type he will receive, purpose-cure or palliation and treatment schedule.
2. Learn what patient already knows.
3. Teach site care.
4. Warm clothes--therapy rooms always cold.
5. Tell patient to let nurse or MD know if problems as N, V, or diarrhea occur.
6. If patient is receiving radiotherapy from unsealed source he will be radioactive until half life is reached or source removed from patient.
7. Patient needs to know number of days he will be isolated, how to do self-care if urine or perspiration is radioactive, P need: check q 2 hr., talk on phone with visitors, TV and reading.
8. **KEY:** Nurse organizes her work, goes in quickly, does care, spends time as far from patient as possible.

Cancer: Pain Myths

1. All patients have pain. (50% have no pain, 40% severe pain, 10% less severe pain).
2. Pain gets worse and worse as cancer progresses until its unbearable. (Pain is a relatively late symptom in most cases and caused by:
    a. Infiltration of nerves, blood vessels and the lymphatic system by tumor cells.
    b. Mechanical pressure of tumor or metastases on blood or lymph vessels.
    c. Invasion of the periosteum or inelastic connective tissue.
    d. Inflammatory and necrotic tissue change in pain sensitive areas of body.

    (Ca pain: distinguishing feature--In 85% of the people who have pain, it is of constant or continuous nature (decreased with pain meds and other methods--but will disappear only if tumor size is reduced)

    **Pain does not usually get progressively worse as patient condition progresses unless mets to bone etc. occurs.)
3. Pain can not be controlled (drugs, psychologic control as imagery, relaxation, etc. TNS--transcutaneous nerve stimulators are sometimes used, palliative surgery and radiation help).

Nursing Care for Ca Patient in Pain

1. Decrease the factors in the environment that are stressful to the patient.
2. Prevent side effects of immobility such as: decubiti, urinary tract infections, constipation, even contractures--Start with prevention.
3. Prevent depressing effects of sensory deprivation associated with immobility, protective isolation, or radiation isolation.

Assist patient/or maintain for patient: cleanliness and odor control.

5. Gentle touch and voice.
6. Approach courteously.

7. Teach patient to avoid trauma and infection.

Give pain meds, (PRN--give early before pain out of control or severe. Often a q 2-4 hr. schedule is set up to maintain constant level of pain control).

Oral pain meds--liquid very common, IV pain meds--also very common with Hickman Catheter.

Oral pain medications were successfully used in the Hospices in England. They used Brompton Cocktail containing heroin, cocaine, alcohol, and a flavoring syrup. Brompton's is not used now because bad side effects from cocaine, very expensive in US, $75/8 oz. bottle--hard to find--drug stores don't stock because they fear rise in crime. Another problem--after use began in USA, various combinations and alterations in ingredients occured and thus Brompton's was no longer a standardized formula.

SUBMODULE III

The Nursing Process Applied to the Patient Experiencing the Stressor of Cancer Treatment.

A. INTRODUCTION:

This submodule addresses the use of the nursing process as it applies to the care of a patient undergoing specific types of treatment for cancer. The most common methods of treating cancer are surgical treatment, chemotherapy and radiotherapy.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing the stressor of surgical treatment for cancer based upon:
   a. common biological deficits frequently experienced by cancer patients which should be corrected prior to undergoing surgery.
   b. common types of cancer-related surgery:
      (1) prophylactic
      (2) curative
      (3) radical
      (4) reconstructive
      (5) palliative
   c. common problems of patients experiencing surgical treatment for cancer:
      (1) altered body function
      (2) altered body image
      (3) impaired healing
2. Identify the components necessary to assess the patient experiencing stressors of chemotherapy based upon:
   a. the goals of chemotherapy
   b. the six (6) general classes of chemotherapeutic drugs:
      (1) antimetabolites
      (2) plant alkaloids
      (3) alkylating agents
      (4) antitumor antibiotics
      (5) radioactive isotopes
      (6) antineoplastics altering hormone balance
   c. the safety measures employed by the nurse in administration of chemotherapeutic drugs.
   d. the impact of the stressors of chemotherapy on PERSON.

3. Discuss topics on which nurses may provide information when planning nursing care for the patient experiencing the stressors of chemotherapy.
4. Identify factors to consider when planning nursing interventions for patients experiencing stressors of chemotherapy.
5. Identify the components necessary to assess the patient experiencing the stressor of radiotherapy based upon:
   a. the goal of radiotherapy
   b. the characteristics of radiosensitive cells
   c. the method by which ionizing radiation destroys a cell.
   d. the measures empolyed to protect the nurse (and others), while caring for a patient in a radioactive environment:
      (1) distance
      (2) time (limitation of exposure)
      (3) shielding
   e. the nursing responsibilities related to the common methods of administering radiotherapy.
      (1) external methods
      (2) internal methods
      (3) treatment by a sealed source
      (4) treatment by an unsealed source
   f. the impact of the stressor of radiotherapy on PERSON.
6. Discuss topics which nurses utilize in patient-teaching for the patient experiencing the stressor of radiotherapy.
7. Identify factors to consider when planning nursing care of a patient experiencing the stressor of radioactive isolation.
8. Discuss the principles related to the nursing care of a patient experiencing the stressor of radioactive isolation.
9. Utilize the evaluation data to identify modifications in nursing care planning.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. J.B. Lippincott Co. 1984 pp. 306-315, 324-328, 333-337, 341-345.

2. Gahart, Betty Intravenous Medications 4th Ed. St. Louis: C.V. Mosby Co. 1985

3. Hornick, Joanne "When a Hickman Catheter is Needed" Patient Care May 30, 1982 pp. 133-135

4. Nursing '86 Drug Handbook Springhouse, PA: Springhouse Corp. 1986

5. Rose, James C. "Nutritional Problems in Radiotherapy Patients" American Journal of Nursing July 1978 pp. 1194-1196
6. Varricchio, C.G. "The Patient on Radiation Therapy" American Journal of Nursing Feb. 1981 pp. 334-337
7. Cancer handout

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 358-396

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer

1. Surgery done to remove lesions that are likely to develop into cancer is known as:

    a. diagnostic
    b. pallative
    c. prophylactic
    d. reconstructive

2. An example of palliative surgery would be a :

    a. colectomy
    b. cardotomy
    c. mastectomy
    d. nephrectomy

3. A major disadvantage of chemotherapy is that it:

    a. attacks cancer cells during their vulnerable phase.
    b. functions against disseminated disease
    c. is systemic
    d. targets normal body cells as well as cancer cells

4. If a patient were receiving a chemotherapeutic agent that could damage the bone marrow, the nurse would assess for:

    a. anemia
    b. leukopenia
    c. thrombocytopenia
    d. all the above

5. The category of cancer chemotherapeutic agents that does NOT interfere with nuclear acids is:

   a. alkalating agents
   b. antimetabolitis
   c. hormones
   d. natural plant alkaloids

6. When a patient takes vincristine, a plant alkaloid, a nurse would assess for symptoms of toxicity related to the:

   a. gastrointestinal system
   b. nervous system
   c. pulmonary system
   d. urinary system

7. Initial nursing action for an infiltration of a chemotherapeutic agent would include all the following EXCEPT:

   a. applying warm compresses to the phlebitic area
   b. immediately discontinuing the infusion
   c. injecting an antidote, if required
   d. placing ice over the area

8. A patient taking a chemotherapeutic agent should be taught meticulous mouth care to prevent infection due to stomatitis. Patient teaching would include:

   a. glycerine
   b. lemon juice
   c. mineral oil
   d. peroxide

9. The nurse should teach patients receiving radiation therapy to protect their skin between radiation treatments. Measures would include all of the following EXCEPT:

   a. applying a bland cream to the radiation site
   b. avoiding irritation with soap and water
   c. using a heat lamp once a day directed to the radiation site to promote tissue repair.
   d. wearing loose fitting clothing

10. The nurse should adivse a patient receiving radiation therapy about treatment measures that can be used to prevent radiation sickness. These would include:

   a. eating small frequent meals of high protein foods
   b. increasing fluid intake
   c. taking supplemental vitamin B
   d. all the above

ANSWERS: 1. C, 2. B, 3. D, 4. D, 5. C, 6. B,
7. A, 8. D, 9. C, 10. D

SUBMODULE IV

The Nursing Process as it Applies to the Stressors of Aging and the Patient with Organic Mental Disease.

A. INTRODUCTION:

Elderly persons constitute a significant portion of our society. The recognition of the aging process and the impact of organic mental disorders is essential for practitioners of nursing.

B. TERMINOLOGY LIST:

1. organic mental disorder
2. acute brain syndrome
3. chronic brain syndrome
4. dementia
5. Alzheimer's disease
6. Pick's disease
7. Werniche-Korsakoff syndrome

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the population
    a. explain the developmental theories of aging
    b. discuss the kinds of aging
2. Explain the physical and psycosocial changes which may occur in individuals as components of the aging process.
3. Discuss aging and health care delivery:
    (a) stereotyped attitudes of the elderly
    (b) myths of aging
    (c) ANA Standards of Geriatric Nursing
4. Discuss preventive and therapeutic measures which assist individuals to adapt to aging changes.
5. Identify lifestyle changes which confront the elderly in our society.
6. Recognize appropriate nursing diagnosis and interventions to assist the aging individual maintain PERSON:
    (a) discuss the principles underlying the nursing management of the elderly patient.
7. Identify the components necessary to assess a patient experiencing stressors of organic mental disease:
    (a) explain the altered anatomy and physiology of organic brain disorders.
        (1) primary brain disease
        (2) systemic disturbances
        (3) exogenous substances

   b. identify commonly occuring signs and symptoms:
      (1) describe the behavioral manifestations of the organic brain disorders.
      (2) list criteria used to differentiate organic from functional mental disorders.
      (3) discuss the significance and incidence of organic mental disorders.
      (4) discuss risk factors for the development of organic mental disorders.
   c. identify the screening tests commonly utilized for organic mental disorders.
   d. describe the nursing assessment guide
   e. identify the usual medical management (therapeutic interventions).
      (1) drug therapy
      (2) nutrition
      (3) physical therapy
      (4) occupational therapy
   f. discuss the impact of organic mental disorders on PERSON.

8. Discuss the components of a nursing plan of care to assist the patient experiencing stressors of organic mental disorders.
   a. explain the goals of nursing care
   b. discuss nursing care of the confused patient
9. Identify appropriate information which nurses may provide patients/significant others regarding organic mental disorders.
   a. reality orientation
   b. handling aggressive behavior
   c. personal care
   d. nutrition
   e. diminished social isolation
   f. handling forgetfulness
   g. handling confusion
   h. community resources
10. Identify factors to consider in evaluation of nursing care.

E. LEARNING RESOURCES:

ESSENTIAL:

1. Johnsom, B.S. (1986) Adaptation & Growth (Ch. 27 & 29) Philadelphia: J.B. Lippincott Co.

2. Brunner, L.S. and Suddarth, D.S. (1984) Textbook of Medical-Surgical Nursing (Chapter 15--omit Care of the Elderly Surgical Patient). Philadelphia: J.B. Lippincott Co.

OPTIONAL:

1. Perry, A.G. and Potter, P.A. (1987) Basic Nursing (pp. 361-373) St. Louis: C.V. Mosby Co.

2. Any Psychiatric Nursing text

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best response.

1. Alzheimer's Disease is characterized by:

    (1) starch-like protein developing at neuronal junction.
    (2) disruption of intellect
    (3) a decline in enzymes
    (4) muscular rigidity

        (a) all the above
        (b) 1,2,4
        (c) 2,3
        (d) 1,2,3

2. Dementia is:

    a. persistent compromise of intellectual function with impairment in at least three spheres: language, memory, visuospatial skills, personality, cognition.
    b. a brain syndrome in which etiology is unknown or presumed.
    c. a disorder of acute onset with cognitive dysfunction due to impairment of cerebral metabolism
    d. an acute permanent disruption of central nervous system functioning.

3. Manifestations of the early stages of Alzheimer's Disease include:

    (1) impairment of memory for recent events
    (2) tendency to blame others for increasing disabilities.
    (3) euphoria
    (4) irritability and insomnia

        (a) all the above
        (b) 1,2
        (c) 1,2,4
        (d) 1,3,4

4. All of the following are TRUE about Werniche-Korsakoff Syndrome EXCEPT:

    a. is usually found in older alcoholics with a steadily increasing alcohol intake.
    b. is a senile digenerative disease
    c. is associated with a thiamin deficiency
    d. can be found in hospitalized patients with chronic intravenous therapy

5. The general goals of care for the patient include all the following EXCEPT:

   a. to eliminate the organic etiology, if possible
   b. to identify the specific crisis
   c. to prevent the acceleration of symptomatology
   d. to preserve the dignity of the client

6. Nursing intervention to help older persons deal with psychological aging would include:

   a. attentive listening
   b. discussing their personal plans for the future
   c. focusing their attention on the present
   d. all the above

7. Nervous system changes associated with aging would include all the following EXCEPT:

   a. a decrease in brain weight subsequent to the destruction of brain cells.
   b. an increase in blood flow to the brain to compensate for the gradual loss of brain cells.
   c. atrophy of the convolutions of the brain surface
   d. widening and deepening of the spaces between the convolutions of the brain.

8. Nursing measures to deal with sensory changes in the aged would include:

   a. increasing room lighting without increasing glare
   b. speaking louder than normal
   c. suggesting appetite stimulants before meals
   d. all the above

9. Kidney function declines with age owing to:

   a. a reduction in the number of glomeruli
   b. diminished tubular function
   c. reduced renal blood flow
   d. all the above

ANSWER: 1.D, 2. A, 3. C, 4. B, 5. B, 6. D,
7. B, 8. D, 9. D

SUBMODULE V

The Nursing Process as it Applies to the Patient with Diabetes

A. INTRODUCTION:

This submodule examines common diagnostic and evaluative procedures for assessment, common treatment modalities and nursing interventions in providing care for a patient experiencing dysfunction of the endocrine aspect of the pancreas. Diabetes Mellitus will be the major focus of this submodule.

Diabetes is a regulatory dysfunction and a chronic disease. the implications are numerous. All of the patient's activities, whether planned or unplanned, will be influenced by the lack of regulatory equilibrium. Instead of depending on an automatic system, the patient must become the controller.

B. TERMINOLOGY LIST

1. **Insulin**
2. **Glucagon**
3. **Diabetes Mellitus**
4. **Gluconeogenesis**
5. **Ketone Bodies**
6. **Glycosuria**
7. **Ketonuria**
8. **Hyperglycemia**
9. **Polyuria**
10. **Endocrine**
11. **Exocrine**
12. **Glycogenolysis**
13. **Polyphagia**
14. **Polydypsia**
15. **Nocturia**
16. **Glucose Tolerance Test**
17. **Macroangiopathy**
18. **Microangiopathy**
19. **Neuropathy**
20. **Smoygi**
21. **Islet of Langerhans**

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient with alterations in blood insulin level and blood glucose levels based upon:
    a. the altered anatomy and physiology
    b. commonly occuring symptoms
    c. the principles (physiological/psychological) of nursing care related to common diagnostic and evaluative procedures specific for the endocrine function of the pancreas.
        (1) blood glucose tests: fasting blood sugar, glucose tolerance tests, strip tests, Hgb A_{1c} (hemoglobin A_{1c}), self glucose monitoring.
        (2) urine tests
    d. the two different types of diabetes
    e. hyperinsulinism
    f. ulcerogenic (Zollinger-Ellison) tumors
    g. the usual medical management utilized to assist the patient with diabetes mellitus.
        (1) medications: insulin (human and animal)
        (2) oral hypoglycemics
        (3) diet therapy: ADA exchange lists
        (4) exercise
    h. complications attributed to diabetes mellitus
        (1) angiopathy (heart, disease, strokes)
        (2) retinopathy (blindness)
        (3) neuropathy (ulcerations, gangrene, amputation, impotence).
        (4) infection (high risk for surgery)
        (5) skin disorders
    i. medical emergencies which can occur
        (1) hypoglycemia, insulin shock
        (2) hyperglycemia, ketoacidosis, diabetic coma
        (3) HHNK (hyperosmolar, hyperglycemic, non-ketotic coma).
    j. the impact of diabetes on PERSON
2. Utilize appropriate nursing principles in planning care for the patient with diabetes.
3. Compare and contrast care planned for a patient with diabetes and one with hyperinsulinism.
4. Discuss topics on which nurses may give information when planning nursing care for the patient with diabetes.
5. State the factors to consider when evaluating nursing care.:
    a. response
    b. efficiency
    c. alternatives

D. LEARNING RESOURCES;

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 883-912
2. Cook, R.N. "Diabetics Can Be Vegetarians" Nursing '79 Oct. 1987 pp. 70-73
3. WK 810 "Diabetes-Mellitus-Pathophysiology" D536 1970 FS/AC.
4. Denman, Gaskin, et.al. Teaching Standards for Diabetes Mellitus Austin, Capital Area Chapter ADA, 1982
5. Williams, Sue Rodwell Essentials of Nutrition and Diet Therapy 4th Ed. St. Louis: C.V. Mosby Co. 1986 pp. 389-413
6. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 601-638

E. LEARNING ACTIVITIES:

1. Prior to class, read and review materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read the clinical background information for each situation. Read each question in relation to the clinical picture presented. Select the correct answer.

Albert is a 35-year-old insulin-dependent diabetic who was admitted to the hospital with a diagnosis of pneumonia. He had been febrile since admission. His daily insulin requirement was 24 units of NPH.

1. Every morning Albert was given NPH and regular insulin at 7:30 AM. Meals were served at 8:30 AM, 12:30 PM, and 6:30 PM. The nurse would expect that the NPH insulin would reach its maximum effect (peak) between the hours of
   a. 11:30 AM and 1:30 PM.
   b. 1:30 PM and 7:30 PM.
   c. 3:30 PM and 9:30 PM.
   d. 5:30 PM and 11:30 PM.
2. A bedtime snack was provided for Albert. This was based on the knowledge that intermediate-acting insulins are effective for an approximate duration of
   a. 6 to 12 hours.
   b. 12 to 18 hours.
   c. 18 to 20 hours.
   d. 24 to 28 hours.
3. Albert refused his bedtime snack. This should have alerted the nurse to assess for
   a. an elevated serum bicarbonate and a decreased blood *p*H.
   b. signs of hypoglycemia earlier than expected.
   c. symptoms of hyperglycemia during the peak time of NPH insulin.
   d. the presence of sugar in the urine.
4. At 11:30 AM, Albert tested +3 on his Tes-Tape measurement for glucosuria. The nurse administered 15 units of regular insulin at 12 noon. Insulin "coverage" should peak between the hours of
   a. 12 noon and 1 PM.
   b. 1 PM and 1:30 PM.
   c. 2 PM and 4 PM.
   d. 4:30 PM and 5 PM.
5. Albert had been febrile since admission. This temperature elevation would correlate with a(n)
   a. decrease in the basal metabolic rate.
   b. decreased need for fluid intake.
   c. increase in the catabolism of carbohydrates.
   d. increase in the storage of glycogen.

Betty is an 18-year-old insulin-dependent diabetic who was unconscious when admitted. Her daily dose of insulin had been 32 units of NPH each morning.

6. Based upon your knowledge of hypoglycemia, you would expect that the serum glucose level, on admission, had to be approximately
   a. 50 mg/dl.
   b. 70 mg/dl.
   c. 90 mg/dl.
   d. 110 mg/dl.

7. Betty was given 1.0 mg of glucagon hydrochloride, subcutaneously, in the emergency room. Your knowledge about the action of this drug would alert you to observe for latent symptoms associated with
   a. glucosuria.
   b. hyperglycemia.
   c. ketoacidosis.
   d. rebound hypoglycemia.
8. After Betty was medically stabilized, she was admitted to the clinical area for observation and health teaching. The nurse would want to make sure that Betty was aware of warning symptoms associated with hypoglycemia, such as
   a. emotional changes.
   b. slurred speech and double vision.
   c. staggering gait and incoordination.
   d. all of the above.
9. Betty should also be taught that hypoglycemia prevention may be possible by
   a. eating regularly scheduled meals.
   b. eating snacks to cover the "peak" time of insulin.
   c. increasing food intake when engaging in increased levels of physical exercise.
   d. doing all of the above.

Christine is a 64-year-old woman who was admitted to the clinical area with a diagnosis of diabetic ketoacidosis. She was drowsy yet responsive on admission.

10. Nursing actions for a diagnosis of ketoacidosis would include
    a. monitoring urinary output via an indwelling catheter.
    b. evaluating serum electrolytes.
    c. testing for glucosuria and acetonuria.
    d. all of the above.
11. The nurse should expect that the rehydrating intravenous solution used would be
    a. 0.9% saline solution.
    b. 5% dextrose and water.
    c. 10% dextrose and water..
    d. sterile water.
12. In evaluating the laboratory results, the nurse would expect all of the following to indicate ketoacidosis *EXCEPT* a(n)
    a. decreased serum bicarbonate.
    b. elevated blood glucose.
    c. increased blood urea.
    d. increased blood *p*H.
13. The physician noted a change in Christine's respirations. Her breathing was described as Kussmaul in nature. The nurse would expect that the respirations would be
    a. deep.
    b. labored.
    c. rapid.
    d. shallow.
14. Christine was started on low-dose intravenous insulin therapy. Nursing assessment would include all of the following *EXCEPT* frequent
    a. blood pressure measurements to monitor the degree of hypotension.
    b. estimates of serum potassium, since increased blood glucose levels are correlated with elevated potassium levels.
    c. evaluation of blood glucose levels because glucose levels should decline as insulin levels increase.
    d. evaluation of serum ketones to monitor the course of ketosis.
15. As blood glucose levels approached normal, the nurse would assess for signs of electrolyte imbalance associated with
    a. hypernatremia.
    b. hypercapnia.
    c. hypocalcemia.
    d. hypokalemia.

ANSWERS: 1.B, 2. D, 3. B, 4. C, 5. C, 6. A, 7. D, 8. D,
9.D, 10. D, 11. A, 12. D, 13. A, 14. B, 15. D,

MODULE V

THE NUTRITION NEED

THE ELIMINATION NEED

The Nutrition Need and The Elimination Need

Prior to the beginning of this module, turn to APPENDIX III and review the listed objectives. The student is responsible for all of the knowledge and skills identified in the objectives.

INTRODUCTION:

This module examines the Nutrition Need and the Elimination Need. The Nutrition Need as defined by Austin Community College Associate Degree Program is "the need for food, nutrients, and water; the process by which one ingests, digests, absorbs and metabolizes these substances" while the Elimination Need is defined as "the need to remove waste products". This module contains the following submodules:

I. Overview of the Nursing Care of the Patient Experiencing Stressors of Dysfunction of the Gastrointestinal System.

II. The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction in the Mouth and Esophagus.

III. The Nursing Process as it Applies to the Patient Experiencing Stressors of Oral or Esophageal Cancer.

IV. The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction of the Stomach and Duodenum.

V. The Nursing Process as it Applies to the Patient Experiencing Various Stressors of Malabsorption, Infection, Inflammation, and Obstruction of the Intestines.

VI. The Nursing Process as it Applies to the Patient Experiencing Stressors of Cancer of the Stomach and Intestines.

VII. The Nursing Process as it Applies to the Patient Experiencing the Stressors of Eating Disorders.

VIII. Overview of the Nursing Care of the Patient Experiencing Stressors of Dysfunction in the Urinary System.

IX. The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction in the Urinary System.

X. The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction in the Male Reproductive System.

XI. The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction in the Pancreas (exocrine).

XII. The Nursing Process as it Applies to the Patient Experiencing the Stressors of Dysfunction of the Gallbladder.

MODULE OBJECTIVES:

Upon completion of this module, the student should be able to:

I. Apply the nursing process to aid an adult patient experiencing the stressors of fluid/electrolyte imbalance.

II. Apply the nursing process to aid an adult patient experiencing the stressors of dysfunction in the mouth and esophagus.

III. Apply the nursing process to aid an adult patient experiencing stressors of dysfunction in the stomach and duodenum.

IV. Apply the nursing process to aid an adult patient experiencing stressors of dysfunction in the intestines.

V. Apply the nursing process to aid an adult patient experiencing the stressors of eating disorders.

VI. Apply the nursing process to aid an adult patient experiencing the stressors of dysfunction in the urinary system.

VII. Apply the nursing process to aid an adult patient experiencing the stressors of dysfunction in the male reproductive system.

VIII. Apply the nursing process to aid an adult patient experiencing the stressors of dysfunction of the exocrine functions of the pancreas.

IX. Apply the nursing process to aid an adult patient experiencing the stressors of dysfunction of the gallbladder.

X. Apply teaching/learning principles when providing patients with strategies to meet their needs for nutrition and elimination.

XI. Recognizes the relationship between learning and professional growth by assuming the responsibility of meeting submodular objectives.

SUBMODULE II

Overview of the Nursing Care of the Patient Experiencing Stressors of Dysfunction of the Gastrointestinal System.

A. INTRODUCTION:

This submodule examines the assessment of the Gastrointestinal System.

B. TERMINOLOGY LIST NONE

C. LEARNING OBJECTIVES:

Upon the completion of the study of this submodule, the student should be able to:

1. Discuss the common pathophysiologic conditions of the gastrointestinal tract.
2. Explain the common symptoms/signs of the patient's inability to maintain his Nutritional Need as it relates to dysfunctions of the GI system.
3. Identify the relationship of the pathophysiologic classifications to the manifestations identified in Objective 2.
4. Discuss the following diagnostic/evaluative procedures of the Nutrition Need as related to the Gastrointestinal System:
    a. gastric analysis
    b. esophagogram
    c. paracentesis
    d. flat plate
    e. CAT scan
    f. ultrasonography
    g. serum iron; transferrin
    h. electrolytes
    i. serum protein
    j. A/G ratio
    k. prothrombin time
    l. tests for vitamins
    m. esophagoscopy
    n. Schilling test
    o. gastrostocopy
    p. proctoscopy
    q. Barium enema
    r. GI series
    s. stool examination
    t. CEA monitoring
    u. CBC

5. Explain the nurses role/responsibilities in the preparation of a patient undergoing the procedures in # 4.
6. Explain the nurse's role/responsibilities in the nursing care of a patient after the procedures in # 4.
7. Explain the following therapeutic interventions and the rationale used in meeting the nutritonal need of the patient with stressors of dysfunction in the GI tract:
   a. surgical intervention
   b. gastrointestinal intubation
   c. tube feedings (Enteral therapy)
   d. TPN
   e. Hickman catheter/central venous lines
8. Demonstrate the ability to safely perform the following nursing skill/interventions:
   a. care of the patient with a central venous line
   b. total parenteral nutrition

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadlephia: J.B. Lippincott Co. 1984 pp.759-788

2. Williams, Sue Rodwell Essentials of Nutrition and Diet Therapy 4th Ed. St. Louis: C.V.Mosby Co.1986 pp. 521-528, 416-436.

3. Bjeletich, Joan and Robert Hickman "The Hickman Indwelling Catheter" American Journal of Nursing January 1980 pp. 62-65

SUPPLEMENTAL:

1. Phipp, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 1425-1450

2. Smith, Sandra and Donna Duell Clinical Nursing Skills Los Altos, CA: National Nursing Review 1985 pp. 366-375, 360-362, 768-772, 353-358, 832, 840-842, 846-848

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in classroom discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read the following questions carefully and select the best answer.

Penny is a 30-year old single woman who is 5'7" tall and weighs 150 pounds. She is receiving total parenteral nutrition solution at the rate of 3 liters/day. Her post-operative condition warrants supplying nutrients by the intravenous route. Questions 1-5 apply to this situation.

1. The nurse knew that Penny's daily caloric intake to spare body protein must be:

   a. about 500 calories/day
   b. approximately 1500 calories/day
   c. around 800 calories/day
   d. equal to 1000 calories/day

2. The nurse estimated Penny's caloric intake for each 1000 ml of total parenteral nutrition to yield a glucose concentration of:

   a. 500 calories
   b. 800 calories
   c. 1000 calories
   d. 1500 calories

3. Penny's parenteral nutrition infusion rate is 120 ml/hour. Her rate had slowed due to positional body changes. To compensate, the nurse could safely increase her rate for 8 hours to:

   a. 100 ml/hour
   b. 125 ml/hour
   c. 138 ml/hour
   d. 146 ml/hour

4. The nurse should observe Penny for a sign(s) of rapid fluid intake which may be:

   a. chills
   b. fever
   c. nausea
   d. all the above

5. The nurse weighed Penny daily. After 7 days, her weight gain was abnormal at:

   a. 3.5 pounds
   b. 5 pounds
   c. 7 pounds
   d. 12 pounds

Martin, a 69 year old widower who lives alone, was diagnosed as having an obstruction of the small intestine. The physician requested nursing assistance for insertion of a Cantor tube. Questions 6-10 apply to this situation.

6. Prior to insertion of the Cantor tube, the nurse would:

   a. assist the patient to a high Fowler's position and help him hyperextend his neck.
   b. explain the purpose of the tube
   c. screen the patient to ensure privacy
   d. all the above

7. Martin needs to be informed that the procedure may involve:

   a. having him hold ice chips in his mouth for a few minutes.
   b. mouth breathing or panting during passage of the tube.
   c. the spraying of his oropharynx with Pontocaine to dull the nasal passages and gag reflex.
   d. all the above

8. After the tube has passed the pyloric sphincter, nursing responsibilities would include advancing the tube:

   a. 1 inch every hour
   b. 1 inch every 4 hours
   c. 2-3 inches every hour
   d. 2-3 inches every 4 hours

9. The nurse knows that tube placement can be verified by checking the pH of aspirated secretions. If the tube were in the intestines, the pH reading would be approximately:

   a. 5.4
   b. 6.8
   c. 7
   d. 8.2

10. Fluid volume deficit is a potential problem with nasoenteric intubation. Indicators of fluid volume deficit would include all the following EXCEPT:

    a. a body temperature of 102° F
    b. dry mucous membranes
    c. lethargy and exhaustion
    d. oliguira

11. A gastric analysis with stimulation that results in an excess of gastric acid being secreted could be diagnostic of:

    a. chronic atropic gastritis
    b. duodenal ulcers
    c. gastric carcinoma
    d. pernicious anemia

12. Prior to a gastroscopy, the nurse needs to inform the patient that:

    a. a fasting state is required for 6-8 hours before the examination.
    b. his throat will be sprayed with a local anesthetic.
    c. post-gastroscopy,he will need to demonstrate a gag reflex before eating or drinking.
    d. all the above will be necessary

13. A flexible sigmoidoscope permits examination of the lower bowel for:

    a. 5-10 inches
    b. 10-15 inches
    c. 16-20 inches
    d. 25-35 inches

ANSWERS: 1. B, 2. C, 3. C, 4. D, 5. D, 6. D, 7. D,
8. C, 9. D, 10. A, 11. B, 12, D, 13. C

SUBMODULE II

The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction in the Mouth and Esophagus.

A. INTRODUCTION:

Obstruction and trauma of the mouth and esophagus often lead to development of infection. This submodule will examine the commonly occuring obstructions, traumatic or inflammation/infection dysfunctions of the mouth and esophagus through the use of the nursing process.

B. TERMINOLOGY LIST

1. **Dental plaque**
2. **Dental caries**
3. **Fluoridization**
4. **Dentoaveolar abcess**
5. **Periodontal disease**
6. **Pyorrhea**
7. **Gingivae**
8. **Malocclusion**
9. **Impacted molars**
10. **Stomatitis**
11. **Ludwig's angina**
12. **Herpes simplex**
13. **Leukoplakia**
14. **Parotitis**
15. **Cheilitis**
16. **Gingivitis**
17. **Oral candidiasis**
18. **Myotomy**
19. **Achalasia**
20. **Esophagitis**
21. **Reflux esophagitis**
22. **Bouginage**
23. **Bougie**
24. **Diverticulum**
25. **Cardiospasm**
26. **Hiatal hernia**
27. **Odynophagia**

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient with obstructive, traumatic, or infection/inflammation dysfunctions of the oral cavity and esophagus based upon:
   a. the effects of the following stressors on the anatomy and physiology of the esophagus and oral cavity (etiology, signs and symptoms, course, complications).:
      (1) foreign bodies
      (2) chemical burns
      (3) perforation of the esophagus
      (4) diverticulum
      (5) esophageal achlasia
      (6) esophageal spasm
      (7) hiatal hernia
      (8) FX of facial bones
      (9) infection/inflammation
   b. identification of individuals at risk
   c. the usual medical management utilized to assist the patient:
      (1) medications: Oxaine M; Valium; Antibodies; Gastric antacids;- Amphogel, Riopan, Corticosteroids; Antiemetics-- Emete-Con, Tigan.
      (2) surgical intervention
      (3) dilitation
      (4) positioning
      (5) diet therapy
      (6) modification of mouth care
   d. the impact of the stressors on PERSON
   e. the commonly occuring problems of patients experiencing these stressors.
2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of dysfunction in the oral cavity and esophagus.
3. Identify situations which requre emergency intervention.
4. Discuss topics which nurses utilize in patient teaching
5. Utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 727-735, 743-749.

2. Lee, Barbara et.al. "Facial Fractures Take a Special Kind of Nursing Care" Nursing '80 Aug. 1980 pp. 43-46

3. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 1485-1500

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best response

William was to return to the clinical area after fixation of a mandibular fracture obtained in a soccer injury. William is 17 years old and had been told that the surgical procedure would result in his lower jaw being held tight against the upper jaw with cross wires. This situation applies to questions 1-4.

1. Postoperatively, the nurse's primary goal would be to maintain:

   a. adequate nutrition
   b. an open airway
   c. jaw immobilization
   d. oral hygiene

2. Postoperatively, the nurse would position William:

   a. flat on back to facilitate lung expansion during inspiration.
   b. on his side with his head slightly elevated to prevent aspiration.
   c. supine with his head to the side to promote the drainage of secretions.
   d. with his head lower than his trunk so he would not aspirate fluids.

3. A recommended postoperative diet for William would be:

   a. bland pureed
   b. clear liquid
   c. full liquid
   d. semisoft

4. For emergency use, the following should be available at the head of the bed:

    a. a nasogastric suction tube
    b. a nasopharyngeal suction catheter
    c. a wire cutter or scissors
    d. an oxygen cannula

5. Post-operatively, nursing care for drainage of a dentoalveolar or periapical abscess would include all the following EXCEPT:

    a. a soft diet with adequate fluid intake
    b. careful dressing changes for the drain inside the tooth, which aids in pus removal.
    c. external heat by pad or compress to hasten the resolution of the inflammatory swelling.
    d. hot saline mouthwashes every 2 hours while awake

6. Tumors of the salivary glands:

    a. are normally malignant and are treated by surgical excision.
    b. commonly recur, with recurrences being more malignant than the original tumor.
    c. may be quiescent for years before rapidly increasing in size.
    d. are characterized by all the above

7. After a radical neck dissection, a patient is placed in the Fowler's position to:

    a. decrease venous pressure on the skin flaps
    b. facilitate swallowing
    c. increase lymphatic drainage
    d. accomplish all the above

8. A nurse caring for a radical neck surgery patient notices an abnormal amount of serosanguineous secretions in the wound suction unit during the first postoperative day. An expected normal amount of drainage would be:

    a. between 40 and 80 ml
    b. approximately 80-120 ml
    c. between 120 and 160 ml
    d. greater than 160 ml

9. Intervention for a person who swallowed a strong acid would include all the following EXCEPT:

    a. administration of an irritant that would stimulate vomiting.
    b. aspiration of secretions from the pharynx if respirations are affected.
    c. neutralizing the chemical
    d. washing the esophagus with large volumes of water.

10. A hiatal hernia involves a(an):

    a. extension of the esophagus through the diaphragm
    b. involution of the esophagus, which causes a severe stricture.
    c. protrusion of the upper stomach into the lower portion of the thorax.
    d. twisting of the duodenum through an opening in the diaphragm.

11. A common postoperative complication of esophageal surgery for cancer is:

    a. aspiration pneumonia
    b. hemorrhage
    c. incompetence of the suture line resulting in fluid seepage.
    d. the dumping syndrome

ANSWERS: 1. B, 2. B, 3. C, 4. C, 5. B, 6. D,
7. D, 8. B, 9. A, 10. C, 11. A

The Nursing Process as it Applies to the Patient Experiencing Stressors of Oral or Esophageal Cancer.

A. INTRODUCTION:

The etiology or oral and esophageal cancer appear to be chronic irritations. Prevention and early detection is a primary nursing concern. This submodule examines oral and esophageal cancer through the use of the nursing process.

B. TERMINOLOGY LIST

1. **Leukoplakia**
2. **Erythroplakia**
3. **Hemiglossectomy**
4. **Glossectomy**
5. **Radical neck dissection**
6. **Xerostomia**
7. **Trismus**
8. **Mucositis**
9. **Tracheostomy**
10. **Laryngectomy**
12. **Esophagectomy**
12. **Esophagostomy**

C. LEARNING OBJECTIVES:

Upon completion the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient with oral and/or esophageal cancer based upon:
    a. effects of cancer on the A&P of oral cavity and esophagus.
    b. explanation of the signs and symptoms of oral and esophageal cancer.
    c. identification of individuals at risk
    d. morbidity/mortality statistics for oral/esophageal cancer.
    e. diagnostic procedures

    f. usual medical management to aid patients experiencing these stressors:
        (1) surgical interventions
        (2) radiation therapy
        (3) chemotherapy
        (4) diet therapy
    g. the impact of oral and esophageal cancer on PERSON.
    h. the impact of the stressor of radical surgical intervention on PERSON.
    i. the commonly occuring problems
2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors or oral and esophageal cancer:
    a. pre-operatively
    b. post-operatively
3. Discuss topics which nurses utilize in patient teaching.
4. Utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 735-743, 749-750

2. Daly, Katherine M. "Oral Cancer, Everday Concerns" American Journal of Nursing Aug. 1979 pp.1415-1417

3. Williams, Sue Rodwell Essentials of Nutrition and Diet Therapy St. Louis: C.V.Mosby Co. 1986 pp. 535-557

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 1487-1500

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best response

Edith is a 44 year old mother of two who had been a chain smoker for 20 years. During the past month, she noticed a dryness in her mouth plus a roughened area that was irritating. She mentioned her symptom to her dentist, who referred her to her medical internist. Questions 1-5 apply to this situation.

1. On physical examination, Edith evidenced changes associated with cancer of the mouth, such as:

    a. a sore roughened area that had not healed in 3 weeks.
    b. minor swelling in an area adjacent to a lesion
    c. numbness in the affected area of the mouth
    d. all the above

2. During a routine history, the nurse noted that Edith did not mention a late-occurring symptom of mouth cancer, which is:

    a. drainage
    b. fever
    c. odor
    d. pain

3. To confirm a diagnosis of carcinoma of the mouth, a physician would order:

    a. a biopsy
    b. a staining procedure
    c. exfoliative cytology
    d. roentgenography

4. Edith chose to have the lesion surgically removed. A priority postoperative nursing measure would be to:

    a. keep the incisional area as dry as possible
    b. keep the mouth clean
    c. maintain an airway
    d. reduce the number of transient bacteria

5. Follow-up care for Edith would be based on the knowledge that:

    a. chemotherapy is a necessary part of postoperative management and should be continued for 2-3 years.
    b. prophylactic radiotherapy is routinely scheduled
    c. surgical intervention in the early stages of cancer is always curative.
    d. 90% of recurrences will appear within the first 18 months.

6. Usually the first symptom associated with esophageal cancer is:

   a. dysphagia
   b. malnutrition
   c. pain
   d. regurgitation of food

Nancy is a 37 year old who is 5'7" tall and weighs 140 pounds. She receives 250 ml of Osmolite over a 15 minute period every 4 hours through a nasogastric tube. Nancy has had esophageal surgery for carcinoma. Questions 7-10 apply to this situation.

7. The physician noted on the progress record, that Nancy was experiencing the dumping syndrome. The nurse knew that an associated symptom(s) would be:

   a. diarrhea
   b. pain
   c. weakness
   d. all the above

8. Because of the dumping syndrome, the physician reduced Nancy's current rate of infusion by half. The nurse would adjust the rate of the gastrostomy feeding to:

   a. 8 ml/min.
   b. 10 ml/min.
   c. 12 ml/min.
   d. 16 ml/min.

9. The nurse noted residual gastric content of 50 ml She would:

   a. delay the feeding 2 hours and reassess
   b. discard the 50 ml and administer the next feeding.
   c. notify the physician
   d. return the solution to the patient and administer the next feeding.

10. In evaluating Nancy's nutritional balance, the nurse noted an abnormal laboratory value: a(an):

    a. blood urea nitrogen reading of 40 mg/100 ml
    b. hematocrit of 45/100 ml
    c. hemoglobin of 14 g/100 ml
    d. serum protein of 10 mg/dl

ANSWERS: 1.D, 2. D, 3.A, 4.C, 5.D, 6.A, 7. D,
8.A, 9. D, 10. A

SUBMODULE IV

The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction of the Stomach and Duodenum.

A. INTRODUCTION:

Changes in the functions of the stomach and duodenum usually lead to alterations in the individual's ability to digest and absorb nutrients. This submodule will examine stressors of dysfunction in the stomach and duodenum through the use of the nursing process.

B. TERMINOLOGY LIST

1. **Motility**
2. **Peristalsis**
3. **Amylase (salivary-pancreatic)**
4. **Gastrin**
5. **Trypsin**
6. **Secretin**
7. **Cholecystokinin**
8. **Peritoneum**
9. **Gastritis**
10. **Bilroth I & II**
11. **Vagotomy**
12. **Psychogenic**
13. **Psychosomatic**
14. **Stress ulcer**
    a. **Curlings ulcers**
    b. **Cushings ulcers**
15. **Post vagotomy atony**
16. **Pyloroplasty**
17. **Gastroenterostomy**
18. **Gastrectomy**
19. **Antrectomy**
20. **Dumping Syndrome**

C. LEARNING OBJECTIVES:

Upon completion of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient with stressors of dysfunction of the stomach and duodenum based upon:
    a. comparison of acute and chronic gastritis (etiology, types of lesions, signs and symptoms).
    b. identification of the factors which disturb the gastric mucosal barrier and their consequences.
    c. differentiation among gastric erosions, acute and chronic ulcers.
    d. explanation of stress ulcers
    e. identification of individuals at risk for development of stress ulcers.
    f. comparison of gastric and duodenal ulcers
        (1) prevalence
        (2) etiology
        (3) common signs and symptoms
        (4) course
    g. identification of individuals at risk for development of ulcers.
    h. identification of the major complications of ulcers
    i. explanation of gastric cancer:
        (1) prevalence
        (2) etiology
        (3) common signs and symptoms
        (4) course
    j. the usual medical management:
        (1) medications: (physiologic action and nursing implications): H_2 blockers- Tagamet, Zantac; Antacids-- amphogel, phosphalgel, riopan, maalox, mylanta I, II, titralac; cholinergic blocking agents-- banthine, muscle relaxant-- valium.
        (2) diet therapy: gastric diets (ulcer)
        (3) surgical interventions
    k, the impact of dysfunction of the stomach and duodenum on PERSON.
    l. the impact of surgical interventions on PERSON
    m. identification of the commonly occuring problems of the patient experiencing stressors of surgical interventions related to dysfunction in the stomach/duodenum.
2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of:
    a. dysfunction in stomach/duodenum
        (1) recognize the 4 major reasons for surgical intervention.
    b. surgical interventions
3. Discuss topics which nurses utilize in patient teaching
4. Utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 788-805

2. Burkle, Wayne S. "What You Should Know About Tagamet" Nursing '80 April pp. 86-87

3. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V.Mosby Co. 1987 pp. 1503-1516

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and choose the best response

1. The MOST COMMON site for peptic ulcer formation is the:

   a. duodenum
   b. esophagus
   c. pylorus
   d. stomach

2. A symptom that distinguishes a chronic gastric ulcer from a chronic duodenal ulcer is the:

   a. absence of any correlation between ulcer presence and a malignancy.
   b. normal to below normal secretion of acid
   c. relief of pain after food ingestion
   d. uncommon incidence of vomiting

3. The blood group that seems most susceptible to peptic ulcer disease is group:

   a. A
   b. B
   c. AB
   d. O

4. A characteristic(s) associated with peptic ulcer pain would be a:

   a. burning sensation localized in the back or mid epigastrium.
   b. feeling of emptiness that precedes meals from 1-3 hours.
   c. severe gnawing pain that increases in severity as the day progresses.
   d. combination of all the above

5. The antacid of choice for a sodium-restricted diet is:

   a. Amphojel
   b. Gelusil
   c. Mylanta
   d. Riopan

6. A commonly used systemic antacid that can cause electrolyte imbalance is:

   a. aluminum hydroxide
   b. magnesium hydroxide
   c. milk of magnesia
   d. sodium bicarbonate

7. Anticholinergics are given to:

   a. block vagal stimulation of parietal cells
   b. decrease gastric motor activity
   c. reduce acid secretion
   d. act by all the above mechanisms

8. A goal of antacid therapy is to keep pepsin relatively inactive, which is possible when the pH exceeds:

   a. 2
   b. 2.5
   c. 3
   d. 3.5

9. The best time to administer an antacid is:

   a. with the meal
   b. 30 minutes before the meal
   c. 1 hour after the meal
   d. 2 hours after the meal

10. A nursing intervention(s) associated with peptic bleeding would be:

    a. checking the blood pressure and pulse rates every 15-30 minutes.
    b. frequently monitoring hemoglobin and hematocrit levels.
    c. observing stools and vomitus for color, consistency, and volume.
    d. all the above

11. If peptic ulcer hemorrhage were suspected, an immediate nursing action would be:

    a. placing the patient supine with his legs elevated
    b. preparing a peripheral and central line for intravenous infusion.
    c. vital sign assessment
    d. all the above

12. A Billroth I procedure is a surgical approach to ulcer management whereby:

    a. a partial gastrectomy is done with anastomosis of the stomach segment to the duodenum.
    b. a sectioned protion of the stomach is joined to the jejunum.
    c. the antral portion of the stomach is removed and a vagotomy performed.
    d. the vagus nerve is cut and gastric drainage is established.

13. Postoperative nursing care for a patient with a partial gastric resection would NOT INCLUDE:

    a. administering 30 ml of fluid through the nasogastric tube every hour to maintain the patency of the tube and help prevent dehydration.
    b. auscultating the abdomen for the presence of bowel sounds.
    c. maintaining the patient in a modified Fowler's position to promote drainage from the stomach.
    d. withholding fluids by mouth until peristalsis has returned.

14. Teaching points to help a total gastric resection patient avoid the dumping syndrome would include all the following EXCEPT:

    a. eating small frequent meals
    b. increasing the carbohydrate content of the diet to supply needed calories for energy.
    c. lying down after meals
    d. taking fluids between meals to decrease the total volume in the stomach at one time.

15. Pulmonary complications frequently follow upper abdominal incisions because:

    a. aspiration is a common occurrence associated with postoperative injury to the pyloric or cardiac sphincter.
    b. pneumothorax is a common complication of abdominal surgery when the chest cavity has been entered.
    c. the patient tends to have shallow respirations in an attempt to minimize incisional pain.
    d. all the above are true

16. An UNEXPECTED OUTCOME of a total gastric resection would be:

    a. a respiratory rate between 14-20 breaths
    b. a urinary output of 20 ml/hour
    c. clear breath sounds
    d. minimal blood in the gastric drainage after 12 hours.

ANSWERS: 1.A, 2. B, 3.D, 4.D, 5.D, 6.D, 7.D, 8.D, 9.C,
10.D, 11.D, 12.A, 13.A, 14.B, 15.C, 16.B

SUBMODULE V

The Nursing Process as it Applies to the Patient Experiencing Various Stressors of Malabsorption, Infection, Inflammation, and Obstruction of the Intestine.

A. INTRODUCTION:

Malabsorption, inflammation, infection, and obstruction may occur within the gastrointestinal tract. This submodule examines these phenomena in the intestinal tract through the use of the nursing process.

B. TERMINOLOGY LIST

- Steatorrhea
- Laporotomy
- Sprue
- Gluten
- Celiac disease
- Regional enteritis
- Ulcerative colitis
- Crohns disease
- Ileostomy
- Soave procedure
- Appendicitis
- Rovsing's sign
- Diverticulitis
- Diverticulosis
- Meckel's Diverticulum
- Peritonitis
- Ileus
- Lysis of adhesions
- Hernia
- Direct hernia
- Indirect hernia
- Ventral hernia
- Umbilical hernia
- Femoral hernia
- Reducible hernia
- Strangulated (incarcerated) hernia
- Truss
- Volvulus
- Paralytic ileus
- Intusseception
- Adhesions
- Loop colostomy
- Hemorrhoid
- Anorectal abcess
- Fistula in anus
- Fissure in anus
- Pilonidal cyst

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess patients experiencing stressors of malabsorption, infection, inflammation and obstruction of the intestinal tract based upon:
    a. explanation of the term malabsorption syndrome
    b. identification of the commonly occuring signs and symptoms of malabsorption syndrome.
    c. explanation of the primary intestinal dysfunctions associated with malabsorption in relation to:
        (1) etiology
        (2) morbidity/mortality
        (3) incidence
        (4) course of conditions
    d. comparison of Chrohn's disease and ulcerative colitis.
    e. explanation of diagnostic tests and evaluative procedures.
    f. explanation of the usual medical management to aid patients experiencing stressors of malabsorption:
        (1) medications: (physiologic action and nursing implications); Prednisone, Keflin, Ferrous gluconate, Sulfasuxidine, sulfasalazine.
        (2) diet therapy: bland low residue diet, lactose free diet.
        (3) surgical intervertion: state the rationale for the various problems.
    g. impact of stressors of malabsorption on PERSON
    h. impact of the stressor of surgical intervention on PERSON.
    i. identification of commonly occuring problems of stressors of malabsorption.
    j. identification of commonly occuring problems of surgical intervention.
    k. identification of the anatomical features of the appendix which make it especially vulnerable to obstruction.
    l. description of the signs and symptoms of appendicitis
    m. comparison of diverticulosis and diverticulitis in relation to:
        (1) pathogenic mechanisms
        (2) signs and symptoms
    n. recognition of the reaction of the peritoneum to invasion of pathogens.
    o. differentiation between adynamic ileus and mechanical obstruction.

p. description of the following stressors as related to bowel obstruction, (site of occurence, frequency, age groups):
  (1) adhesions
  (2) volvulus
  (3) intussusception
  (4) tumors
  (5) incarcerated hernia
  (6) strangulated bowel
q. the pathophysiologic mechanism of bowel obstruction.
r. the signs and symptoms of bowel obstruction
s. the pathologic features of internal and external hemorrhoids:
  (1) site
  (2) frequency
  (3) predisposing factors
  (4) signs and symptoms
t. the explanation of the relationship of anal fissures to hemorrhoids.
u. identification of the 4 common sites of anorectal abscess formation.
v. explanation of the relationship of anal cryptitis and Crohn's disease to anorectal fistulae.
w. the usual medical management:
  (1) medications: (physiologic action and nursing implications)
    (a) cathartics: Ducolax, Metamucil, Colace, Senokot.
  (2) diet therapy: high fiber diet
  (3) sitz baths
  (4) GI intubation and decompression
  (5) surgical intervention
x. the impact of stressors of infection, inflammation, and obstruction on PERSON.
y. the impact of stressors of surgical intervention on PERSON.
z. the identification of commonly occuring problems of patients experiencing these stressors.

2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of malabsorption, infection, inflammation, and obstruction of the intestinal tract.
3. Discuss topics which nurses utilize in patient teaching
4. Utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth
Textbook of Medical-Surgical Nursing 5th Ed.
Philadelphia: J.B. Lippincott Co. 1984
pp. 806-827, 837-845

2. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

3. Kroner, Kristine "Are You Prepared for Your Ulcerative Colitis Patients?" Nursing '80 April 1980 pp. 43-49

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V.Mosby Co. 1987 pp. 1516-1523, 1525-1548

2. Smith, Sandra and Donna Duell Clinical Nursing Skills Los Altos, CA: National Nursing Review 1985 pp. 533-537

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer

Rory is a 10 year old girl who was admitted to the hospital with a possible diagnosis of appendicitis. She had been symptomatic for several days prior to admission. Questions1-5 apply to this situation.

1. During assessment, the nurse was looking for positive indicators of appendicitis, which would include all the following EXCEPT:

   a. a low grade fever
   b. abdominal tenderness on palpation
   c. thrombocytopenia
   d. vomiting

2. On physical examination, the nurse would be looking for tenderness on palpation at McBurney's point, which is located in the:

   a. left lower quadrant
   b. left upper quadrant
   c. right lower quadrant
   d. right upper quadrant

3. A symptom or symptoms suggestive of acute appendicitis would be:

   a. a positive Rovsing's sign
   b. increased abdominal pain with coughing
   c. tenderness around the umbilicus
   d. all the above

4. Preparation for an appendectomy would include:

   a. an intravenous infusion
   b. prophylactic antibiotic therapy
   c. salicylates to lower an elevated temperature
   d. all the above

5. Postoperatively the nurse should assess for the presence of a mechanical ileus, which would be evidenced by:

   a. abdominal rigidity
   b. chills, fever, and sweats
   c. diarrhea
   d. the absence of bowel sounds

Sharon experienced peritonitis subsequent to ambulatory peritoneal dialysis. Her presenting symptoms were pain, abdominal tenderness and nausea. Questions 6-9 apply to this situation.

6. On assessment, the nurse looked for additional symptom(s) diagnostic of peritonitis, which would include:

   a. abdominal rigidity
   b. diminished peristalsis
   c. leukocytosis
   d. all the above

7. A central venous pressure catheter was inserted to monitor fluid balance. The nurse's readings indicated low circulatory volume. The reading most likely between:

   a. 2 cm- 4 cm H_2O
   b. 6 cm- 8 cm H_2O
   c. 10 cm- 12 cm H_2O
   d. 14 cm- 16 cm H_2O

8. Based on Sharon's CVP reading, indicating hypovelemia, the nurse should assess for all the following EXCEPT:

   a. bradycardia
   b. hypotension
   c. oliguria
   d. tachypnea

9. With treatment, Sharon's peritonitis subsided. However, the nurse continued to assess for the common complication of:

   a. abscess formation
   b. respiratory arrest due to excess pressure on the diaphragm.
   c. umbilical hernia
   d. urinary tract infection

10. Common clinical manifestations of Crohn's disease are:

    a. abdominal pain and diarrhea
    b. edema and weight gain
    c. nausea and vomiting
    d. obstruction and ileus

11. Nutritional management for regional enteritis would consist of diet therapy that is:

    a. high in fats
    b. high in fiber
    c. low in protein
    d. low in residue

12. Remission of inflammation in ulcerative colitis is possible with:

    a. antidiarrheal medication
    b. periods of rest after meals
    c. steroid therapy
    d. all the above

13. A problem unique to the patient with an ileostomy is that:

    a. regular bowel habits cannot be established
    b. sexual activity is restricted
    c. skin excoriation can occur
    d. the collecting appliance is bulky and large

ANSWERS: 1. D, 2. C, 3. D, 4. D, 5. D, 6. D, 7. A,
8. A, 9. A, 10. A, 11.D, 12. D, 13. A

SUBMODULE VI

The Nursing Process as it Applies to the Patient Experiencing the Stressors of Cancer of the Stomach and Intestines.

A. INTRODUCTION:

Neoplasms of the small intestines are relatively rare. Cancer of the large intestines is the most commonly occuring internal cancer. This submodule examines the stressors of neoplasms of the intestinal tract through the use of the nursing process.

B. TERMINOLOGY LIST

1. effluent
2. polyposis
3. colostomy
4. abdominal-perineal resection
5. wet colostomy
6. double barrel colostomy
7. transverse colostomy
8. descending (sigmoid) colostomy

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of neoplasms of the intestine based upon:
   a. explanation of polyps of the intestine in relation to:
      (1) incidence
      (2) etiology
      (3) signs and symptoms
   b. explanation of cancer of the intestinal tract in relation to:
      (1) incidence
      (2) etiology
      (3) morbidity, mortality
      (4) signs and symptoms
   c. the usual diagnostic tests and evaluative procedures.
   d. the usual medical management:
      (1) surgical interventions
      (2) explain the term "bowel prep"
      (3) diet therapy: low fiber, high caloric diet
   e. the impact of neoplasms of the intestinal tract on PERSON.
   f. the impact of surgical intervention on PERSON

   - g. the identification of commonly occuring problems of patients experiencing neoplasms of the intestinal tract.
   - h. the identification of commonly occuring problems of patients experiencing surgical interventions for these stressors.

2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of cancer of the intestine.
3. Discuss topics which nurses utilize in patient teaching.
4. Utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 827-836

2. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

SUPPLEMENTAL:

1. Smith, Sandra and Donna Duell Clinical Nursing Skills Los Altos, CA: National Nursing Review 1985 pp. 528-532

2. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby 1987 pp. 1548-1570

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer

1. For colostomy irrigations, the enema catheter should be inserted into the stoma:
   a. 1 inch
   b. 2-3 inches
   c. 4-6 inches
   d. 8 inches

2. For a colostomy irrigation, the patient should be directed to hold the enema can or bag above the level of the colostomy approximately:
   a. 6 inches
   b. 8-16 inches
   c. 18-24 inches
   d. 30 inches

3. The total quantity of irrigating solution that can be instilled at one session would be:
   a. 1000 ml
   b. 1500 ml
   c. 2500 ml
   d. 3000 ml

4. With the double barrel colostomy, irrigation:
   a. is contraindicated
   b. is possible through both the proximal and distal ends.
   c. should be limited to the distal segment
   d. would be recommended for the proximal opening

5. Clinical manifestations associated with small bowel obstruction would include all the following EXCEPT:
   a. dehydration
   b. pain that is wavelike in character
   c. the passage of blood tinged stool
   d. vomiting

6. Diverticulitis is clinically manifested by:
   a. a low grade fever
   b. a change in bowel habits
   c. left lower quadrant pain
   d. all the above

7. The most common site for diverticulitis is the:

    a. duodenum
    b. ileum
    c. jejunum
    d. sigmoid

8. The mortality rate for cancer of the colon is:

    a. less than 20%
    b. 30% to 40%
    c. 50% to 60%
    d. greater than 80%

9. Preoperatively, intestinal antibiotics are given for colon surgery to:

    a. decrease the bulk of colon contents
    b. reduce the bacterial content of the colon
    c. soften the stool
    d. do all the above

ANSWERS: 1.C, 2. C, 3. B, 4. B, 5. C, 6. D, 7. D,
8. C, 9. D

SUBMODULE VII

The Nursing Process as it Applies to the Patient Experiencing the Stressors of Eating Disorders.

A. INTRODUCTION:

There is a significant population at risk for the development of eating disorders. Within the multidisciplinary approach utilized to manage these patients, nursing plays a primary role. This submodule examines eating disorders using the nursing process as the framework.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the compenents necessary to assess a patient with stressors of eating disorders based upon:
   a. explanation of the following terms:
      (1) anorexia nervosa
      (2) bulimia
      (3) binge eating
      (4) instrumental (goal directed)vomiting
      (5) psychogenic vomiting
   b. identification of the population at risk for development of eating disorders.
   c. identification of the commonly occurring signs and symptoms of eating disorders.
   d. discussion of the diagnostic and evaluative procedures.
   e. explanation of the usual therapeutic interventions to aid patients experiencing eating disorders.
      (1) discuss the interdisciplinary approach
      (2) psychotherapy (individual, group)
      (3) behavior modification
      (4) medications:
         (a) MAOI: phenelzine
         (b) antidepressants: imipramine, cyproheptadine, amitriptyline, chlorpromazine.
         (c) anticonvulsant: phenytoin
      (5) enteral feedings
      (6) hyperalimentation
   f. impact of the stressors of eating disorders on PERSON.
2. Utilize appropriate nursing principles in planning care for the patient experiencing stressors of eating disorders.
3. Demonstrate the ability to safely perform the following skills/interventions.
   a. enteral feedings
   b. nursing care of the patient experiencing hyperalimentation.
4. Discuss topics which nurses utilize in patient teaching.
5. Utilize the evaluation data to identify modification of NCP

D. LEARNING RESOURCES:

ESSENTIAL:

1. Sanger, Eldine and Therese Cassino "Eating Disorders; Avoiding the Power Struggle" American Journal of Nursing January 1984 pp. 31-33
2. Nursing '86 Drug Handbook Springhouse, PA; Springhouse Corp. 1986
3. Johnson, Barbara Schoen Psychiatric-Mental Health Nursing Philadelphia: J.B.Lippincott Co. 1986 pp 404

SUPPLEMENTAL:

Any Psychiatric Nursing Text

E. LEARNING ACTIVITIES:

1. Prior to class, read the materials under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Identify each descriptive characteristic as either anorexia nervosa (NV), or Bulemia (B).

1. ___ consumes high calorie, easily digested foods
2. ___ weight loss of at least 25% of body weight
3. ___ denial of illness common
4. ___ awareness that eating pattern is abnormal
5. ___ intense fear of becoming obese
6. ___ tend to be perfectionists with unrealistic high standards for themselves.
7. ___ inconspicuous eating
8. ___ no known physical illness that would account for weight loss.
9. ___ have nutritional deficiencies
10. ___ tend to take frequent trips to the bathroom

Answer TRUE or FALSE to the following:

11. ___ anorexia has a 15% death rate
12. ___ bulemia is considered epidemic on college campuses
13. ___ bulemic patients frequently show improvement with the use of antidepressant medication.

14. ___ the best prognosis for eating disorders occurs when they are discovered and treated early.

15. ___ syrup of epicac may be used by bulemia patients to purge themselves.

ANSWERS: 1. B, 2. A.N., 3. A.N., 4. B, 5. A.N., 6. A.N.,
7. B, 8. A.N., 9. A.N., 10. B, 11. F, 12. T,
13. T, 14. T, 15. F

SUBMODULE VIII

Overview of the Nursing Care of the Patient Experiencing Stressors of Dysfunction in the Urinary System.

A. INTRODUCTION:

This module explores the basic assessment of common manifestations and therapeutic interventions utilized in the care of the patient with dysfunctions of the genitourinary system. It also will briefly examine a common serious outcome-- acute renal failure.

B. TERMINOLOGY LIST

Micturation

Urinary frequency

Hesitancy

Nocturia

Urinary incontinence

Stress incontinence

Enuresis

Polyuria

Oliguria

Hematuria

Retention

Specific gravity

Urine Osmolality

G.U.

U.T.I.

Nosocomial infection

Urethral catheterization

Uremia

Azotemia

Bacteremia

Urethrovesical reflux

Vesicoureteral reflux

Cystitis

Pyelonephritis

Urolithiasis

Orchitis

Orchiectomy

Epididymitis

BPH

Prostatectomy

Nephrolithotomy

Pylelolithotomy

Ileal Conduit

Ureterosigmoidostomy

Cutaneous ureterostomy

Suprapubic cystostomy

Nephrostomy

Urinary germicides

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Describe the following common diagnostic methods as they relate to dysfunction of the urinary system.
    - a. x-rays (i.e., KUB, pyelogram, cystogram, retrograde urethrogram).
    - b. cystosopic exam
    - c. biopsy
    - d. radioisotope studies
    - e. urine tests
    - f. renal function tests
    - g. culture of fluids
2. Summarize the nursing responsibilities of the above diagnostic tests.
3. Describe method for testing urine for specific gravity.
4. Describe the clinical manifestations or urinary dysfunction.
5. Discuss the therapeutic interventions used to assist the patient with signs/symptoms of urinary dysfunction:
    - a. urethral catheterization
    - b. diet/fluid therapy: calcium restriction, phosphorus restriction, fluids increase, foods that affect pH of the urine.
    - c. medications: (physiologic action and nursing implications).
        - (1) analgesics: morphine sulfate, anesthetic pyridium.
        - (2) antispasmotics: (probanthine), B&O suppository
        - (3) anti-infectives:
            - (a) antibodics
            - (b) sulfonamides
            - (c) urinary germicides: Gantrisin, Serenium, Mandelamine, Hiprex, NegGram, Macrodantin, Furadantin, Furacin
    - d. heat/cold application
6. differentiate between renal failure and uremia
7. define acute renal failure

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 960-975, 994-997

2. Stark, June "Acute Renal Failure" Nursing '82 July pp. 26-33

3. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing C.V. Mosby Co. 1987 pp. 1577-1590

2. Smith, Sandra and Donna Duell Clinical Nursing Skills Los Altos, Calif. National Nursing Review 1985 pp. 457-462, 465-478, 481-494

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in classroom discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best response

1. The nephrotic syndrome causes hypoalbuminemia, which results in:

   a. activation of the renin-angiotensin system
   b. decreased oncotic pressure
   c. edema
   d. all the above

2. The MOST SPECIFIC and sensitive indicator of kidney disease is the:

   a. blood urea nitrogen
   b. serum creatinine
   c. serum potassium
   d. uric acid level

3. A major manifestation of uremia is:

   a. a decreased serum phosphorus level
   b. hyperparathyroidism
   c. hypocalcemia with bone changes
   d. an increased secretion of parathormone

4. Oliguria is said to be present when urinary output is:

   a. less than 30 ml/hour
   b. about 100 ml/hour
   c. between 300 and 500 ml/hour
   d. between 500 and 1000 ml/hour

5. The nurse should inform a patient that preparation for an intravenous pyelogram would include:

   a. a liquid restriction for 8-10 hours prior to the test.
   b. clear liquids for 3 days prior to the test
   c. enemas until clear
   d. remaining NPO from midnight before the test

6. Nursing responsibilities after a renal angiogram would include:

   a. assessment of peripheral pulses
   b. color and temperature comparisons between the involved and uninvolved extremities.
   c. examination of the puncture site for swelling and hematoma formation.
   d. all the above

7. A cystoscope allows visualization of the:

   a. bladder
   b. ureteral orifices
   c. urethra
   d. above areas

8. Nursing management after a renal biopsy would include:

   a. assessing for the clinical manifestations of hemorrhage.
   b. encouraging a fluid intake of 3 liters/24 hours
   c. obtaining a sample of each voided urine to compare it with a prebiopsy specimen.
   d. all the above

9. A 24-hour urine collection is scheduled to begin at 8AM. Thenurse would begin the procedure:

   a. after discarding the 8AM specimen
   b. at 8AM with or without a specimen
   c. 6 hours after the discard urine
   d. with the first specimen voided after 8AM

10. Nursing responsibilities associated with the phenolsulfonphthalein excretion test would include all the following EXCEPT:

   a. encouraging fluids 1-1 1/2 hours before the test
   b. recording the exact time the dye is administered
   c. collecting urine at 15-30-and 60 minute intervals
   d. pushing post-test fluid intake to 5 liters/day for 3 days.

ANSWERS: 1.D, 2. B, 3. C, 4. A, 5. A, 6. D, 7. D, 8. D, 9. A, 10. D

SUBMODULE IX

The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction in the Urinary System.

A. INTRODUCTION:

This submodule explores the common pathophysiology of infection, obstruction, and trauma to the urinary system and the subsequent interventions necessary to assist the patient to maintain the elimination need.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Discuss the stressor of infection and its affect on the elimination need-- the urinary system.
    a. identify the components necessary to assess a patient with infection of the urinary system based upon:
        (1) differentiation of clinical manifestations of upper and lower urinary tract infection.
        (2) determination of "significant" bacteria count for bacterial UTI.
        (3) identification of bacteria commonly responsible for UTI.
        (4) description of precipating factors in UTI
        (5) explanation of why females have greater risk of UTI than males.
        (6) explanation of how UTI may reoccur
        (7) identification of the danger of UTI
        (8) explanation of the importance of urine pH
        (9) discussion of common therapeutic interventions:
            (a) medications: analgesics/anesthetics--pyridium; urinary germicides--methenamine hippurate (Hiprex), Nalidixio acid (NegGram), Nitrofurantoin (Furandantin), Nitrofurazone (Furacin).
            (b) fluids
            (c) heat application
        (10) describe the impact of urinary tract infection on PERSON.
    b. utilize appropriate nursing principles in planning care for the patient experiencing the stressor of infection of the urianry system.
    c. compare and contrast care planned for a patient with upper vs lower UTI.

d. demonstrate the ability to safely perform the following skills/interventions:
(1) uretheral catheterization
(2) catheter irrigation
e. discuss topics which nurses utilize in patient teaching.
f. utilize the evaluation data to identify modifications in NCP.

2. Discuss the stressor of obstruction and its affect on the elimination need-- the urinary system.
a. identify the components necessary to assess a patient with obstruction of the urinary tract based upon:

UROLITHIASIS

(1) identification of factors that favor formation of stones.
(2) description of the composition of urinary stones.
(3) description of the clinical manifestations of stones in the urinary tract.
(4) differentiation between renal and ureteral colic.
(5) identification of immediate objective of treatment for the patient with urolithiasis.
(6) discussion of usual medical management utilized to assist the patient with urolithiasis:
(a) medications: Zyloprim
(b) diet therapy: low calcium and phosphorus, low purine diet.
(c) surgical intervention: removal of stone
(7) recognition of measures patients may take to prevent urolithiasis.
(8) description of causes of urethral strictures
(9) description of the clinical manifestations
(10) discussion of palliative and operative treatments.

BLADDER TUMORS

(11) identification of risk factors for cancer of the bladder.
(12) description of the clinical manifestations
(13) discussion of the medical management: radiation, surgery, chemotherapy, urinary diversion(ileal conduit), ureterosymoidostomy).
(14) the impact of stones, strictures and bladder tumors on PERSON.

b. apply the nursing princples in planning individualized care for the patient experiencing the stressors of urinary tract obstruction.
c. compare and contrast the care planned for a patient with urianry stones, urethral strictures, and bladder tumors.

d. demonstrate the ability to safely perform the following skills/interventions:
    (1) straining urine for stones
    (2) care for a patient with urinary diversion
e. discuss topics which nurses utilize in patient teaching.
f. utilize the evaluation data to identify modifications in NCP.

3. Discuss the stressor of trauma and its affect on the elimination need- the urinary system.
    a. identify the components necessary to assess a patient with trauma to the urinary system based upon:
        (1) identification of most serious complication following injury to the kidney.
        (2) description of clinical manifestations of urinary trauma.
        (3) discussion of usual medical management
            (a) bedrest
            (b) H&H monitoring
            (c) antimicrobials
            (d) surgery
        (4) the impact of trauma of the urinary system on PERSON.
    b. utilize appropriate nursing principles in planning care for the patient experiencing the stressor of trauma on the urinary system.
    c. compare and contrast care planned for a patient with either kidney or bladder trauma.
    d. discuss topics which nurses utilize in patient teaching.
    e. utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 4th Ed. Philadelphia: J.B. Lippincott Co. 1980 pp. 1003-1006, 1007, 1011-1018

2. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

3. "Clinical Forum: Urological Emergencies-- Urinary Tract Infection" Nursing Mirror Jan. 22, 1981 Suppl. II-V

SUPPLEMENTAL:

1. Smith, Sandra and Donna Duell Clinical Nursing Skills Los Altos, CA: National Nursing Review 1985 pp. 465-478, 481-494
2. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V.Mosby Co. 1987 pp. 1595-1642

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in classroom discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer

1. A sign of a possible urinary tract infection would be:

   a. a negative urine culture
   b. an output of 200-900 ml with each voiding
   c. urine that is cloudy in appearance
   d. urine with a specific gravity of 100.5 to 1.022.

2. Health information for a female patient diagnosed as having cystitis would include all the following EXCEPT:

   a. cleanse around the perineum and urethral meatus (from front to back), after each bowel movement.
   b. drink liberal amounts of fluid
   c. shower rather than bathe in a tube
   d. void no more frequently than every 6 hours to allow urine to dilute the bacteria in the bladder.

3. A major clinical manifestation of renal stones is:

   a. dysuria
   b. hematuria
   c. infection
   d. pain

4. A patient being managed on a diet moderately reduced in calcium and phosphorus should be taught to avoid:

   a. citrus fruits
   b. milk
   c. pasta
   d. whole grain breads

5. Patients with urolithiasis need to be encouraged to:

   a. increase their fluid intake so they can excrete 3000 ml- 4000 ml every day in order to prevent additional stone formation.
   b. participate in strenuous exercises so that the tone of smooth muscle in the urinary tract can be strengthened to help propel calculi.
   c. supplement their diet with calcium needed to replace losses to renal calculi.
   d. void every 6-8 hours so that increased volume can increase hydrostatic pressure, which will help push stones along the urinary system.

6. An EARLY indicator of renal trauma would be:

   a. a palpable mass
   b. hematuria
   c. localized tenderness
   d. renal colic

7. The MOST COMMON symptom of a bladder tumor is:

   a. back pain
   b. dysuria
   c. localized tenderness
   d. renal colic

8. The urinary diversion whereby the patient will void from his rectum for the rest of his life is known as a:

   a. cutaneous ureterostomy
   b. nephrostomy
   c. suprapubic cystostomy
   d. ureterosigmoidostomy

ANSWERS: 1.C, 2. D, 3. D, 4. D, 5. A, 6. B, 7. C,
8. D.

SUBMODULE X

The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction in the Male Reproductive System.

A. INTRODUCTION:

This submodule explores the pathophysiology of the male reproductive system and the subsequent interventions necessary to assist the patient to maintain the Elimination Need.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Discuss the stressors affecting the penis, testes and scrotum.
    a. identify the components necessary to assess a patient with dysfunction of:
        (1) epididymitis and orthitis based upon:
            (a) statement of causes of the inflammation
            (b) description of clinical manifestations
            (c) discussion of usual medical management: bedrest; heat/cold compresses; scrotal support; medications-- anti-infectants, analgesics; surgery-- epididymectomy.
        (2) cancer of the testes and penis based upon:
            (a) identification of a high risk group and morbidity/mortality statistics.
            (b) description of clinical manifestations of cancer of the penis and testes.
            (c) discussion of usual medical management: surgery; radiotherapy; chemotherapy.
        (3) hydrocele and varicocele based upon:
            (a) identification of causes
            (b) description of clinical manifestations
            (c) discussion of usual medical management: conservative, surgery
        (4) the impact of these stressors on PERSON
    b. utilize appropriate nursing principles in planning care for the patient of dysfunction of the penis, testes, and scrotum.
    c. compare and contrast care planned for a patient experiencing the stressors of dysfunction of the penis, testes, and scrotum.
    d. discuss topics which nurses utilize in patient teaching.
    e. utilize the evaluation date to identify modifications in NCP.

2. Discuss the stressors affecting the prostate
   a. identify the components necessary to assess a patient with dysfunction of:
      (1) prostatitis based upon:
         (a) statement of causes of inflammation
         (b) description of clinical manifestations
         (c) discussion of usual medical management: bedrest; drug therapy-- Bactrim, Septra; sitz bath.
         (d) explanation of complication of prostatitis
      (2) benign prostatic hyperplasia (BPH) based upon:
         (a) description of clinical manifestation
         (b) explanation of how BPH affects urine flow
         (c) discussion of usual medical management: catheterization; surgery-- prostatectomy.
         (d) discussion of normal post-operative course
         (e) discussion of postop complications
      (3) cancer of the prostate gland based upon:
         (a) description of clinical manifestations
         (b) discussion of usual medical management: prostatectomy; orchiectomy; radiation; hormonal (antiandrogen therapy- estrogen)
      (4) the impact of these stressors on PERSON
   b. utilize appropriate nursing principles in planning care for the patient experiencing stressors affecting the prostate.
   c. compare and contrast care planned for a patient with dysfunction of the prostate.
   d. discuss topics which nurses utilize in patient teaching.
   e. utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 1093-1103

2. Gault, Patricia "Testicular Cancer" Nursing '81 May 1981 pp. 47-50

3. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V.Mosby Co. 1987 pp. 1819-1831

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in classroom discussion
3. Complete Clinical Focus

F. PRE-TEST/ POST-TEST:

Read each question carefully and select the best answer.

1. Enlargement of the prostate gland is usually associated with:
    a. dysuria
    b. dilatation of the ureters
    c. hydronephrosis
    d. all the above

2. Health education for a patient with prostatitis would include all the following EXCEPT:

    a. avoiding drinks that increase prostatic secretions
    b. forcing fluids to prevent urine from backing up and distending the bladder.
    c. taking several hot sitz baths daily
    d. using antibiotic therapy for 10-14 days

3. Patients undergoing open surgical removal of the prostate seem to experience a high incidence of:

    a. paralytic ileus
    b. pneumonia
    c. pulmonary embolism
    d. all the above

4. The prostatectomy approach that is associated with a high incidence of impotency is:

    a. perineal
    b. retropubic
    c. suprapubic
    d. transurethral

5. An expected postoperative outcome of prostatectomy would be amber-colored urine within:

    a. 24 hours
    b. 48 hours
    c. 3 days
    d. 1 week
6. As a cause of death in American males over age 55, cancer of the prostate ranks:

    a. first
    b. second
    c. third
    d. fourth

7. In the 20-35 year old age group, testicular cancer as a cause of death, ranks:

   a. first
   b. second
   c. third
   d. fourth

8. A vasectomy involves ligation and transection of the:

   a. bulbourethral gland
   b. epidiymis
   c. seminal vesicle
   d. vas deferens

9. Post vasectomy, sperm:

   a. are not produced
   b. are reabsorbed into the body
   c. remain in the testicles
   d. travel to the bladder and are eliminated in the urine

10. The term PRIAPISM refers to a condition manifested by:

    a. a persistent erection of the penis
    b. constricted foreskin that cannot be retracted
    c. inflammation and ulceration of the penis
    d. retracted foreskin that cannot be reduced into its normal position.

ANSWERS: 1. D, 2. B, 3. C, 4. A, 5. C, 6. B,
7. A, 8. D, 9. A, 10. A

SUBMODULE XI

The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction of the Pancreas (exocrine).

A. INTRODUCTION:

This submodule examines common diagnostic and evaluative procedures for assessment, common treatment modalities and nursing interventions in providing care for a patient experiencing dysfunction of the pancreas (exocrine).

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient with exocrine pancreatic dysfunction based upon:
    a. the altered anatomy and physiology
    b. commonly occuring signs and symptoms
    c. the principles (physiological/psychological) of nursing care related to common diagnostic and evaluative procedures specific for the exocrine function of the pancreas:
        (1) stool analysis
        (2) serum amylase
        (3) serum lipase
        (4) duodenal intubation and aspiration
    d. the usual medical management utilized to assist the patient with exocrine dysfunction of the pancreas:
        (1) medications: Histamine receptor blocking agents; Narcotics, anticholinergics, Digestants.
        (2) diet therapy: low fat
        (3) surgical interventions
    e. the impact of the dysfunction on PERSON
2. Utilize appropriate nursing princples in planning care for the patient experiencing the stressors of dysfunction of the pancreas.
3. Compare and contrast care planned for a patient with either pancreatitis, Ca of the pancreas, or pancreatic tumors.
4. Discuss topics which nurses utilize in patient teaching.
5. Utilize the evaluation date to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth
   Textbook of Medical-Surgical Nursing 5th Ed.
   Philadelphia: J.B. Lippincott Co. 1984
   pp. 940-950
2. Given, Barbara and Sandra Simmons
   Gastrointerology in Clinical Nursing 3rd Ed.
   St. Louis: C.V. Mosby Co. 1979 pp. 209-232
3. Nursing '86 Drug Handbook Springhouse PA:
   Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing
   St. Louis: C.V.Mosby Co. 1987 pp. 698-715

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in classroom discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer.

1. The nurse should assess for an important early indicator of acute pancreatitis, which is increased:

   a. serum amylase
   b. serum lipase
   c. white cell count
   d. urine amylase

2. A nursing measure(s) for pain relief for pancreatitis would be:

   a. encouraging bedrest to decrease the metabolic rate.
   b. teaching the patient about the correlation between alcohol and pain.
   c. withholding oral feedings to limit the release of secretin.
   d. all the above

3. With pancreatic carcinoma, insulin deficiency is suspected when the patient evidences:

   a. an abnormal glucose tolerance
   b. glucosuria
   c. hyperglycemia
   d. all the above

4. A clinical manifestation(s) associated with a tumor of the head of the pancreas would be:

   a. clay-colored stools
   b. dark urine
   c. jaundice
   d. all the above

5. A major symptom of pancreatitis is:

   a. abdominal pain
   b. fever
   c. jaundice
   d. mental confusion and agitation

ANSWERS: 1.A, 2. D, 3. D, 4. D, 5. A

SUBMODULE XII

The Nursing Process as it Applies to the Patient Experiencing the Stressor of Dysfunction of the Gallbladder.

A. INTRODUCTION:

The gallbladder is a pear-shaped organ positioned on the underside of the liver. Bile secreted by the liver, and stored in the gallbladder, is important in the digestion of fat in the duodenum.

B. TERMINOLOGY LIST:

1. cholecystitis
2. cholelithiasis
3. cholecystectomy
4. cholecystostomy
5. choledochotomy

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing the stressor of biliary tract dysfunction based upon:
    a. altered anatomy and physiology
    b. symptoms characteristic of biliary tract disease.
    c. explanation of the usual diagnostic tests/ evaluative procedures specific to biliary dusfunction:
        (1) serum cholesterol
        (2) cholecystogram
        (3) cholangiogram
    d. the usual medical management utilized to assist the patient experiencing the stressor of infection and/or obstruction of the biliary tract:
        (1) medications
        (2) diet
        (3) surgical interventions: pre and post operative nursing care.
    e. the impact of the dysfunction on PERSON
2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of biliary tract dysfunction.
3. Compare and contrast care planned for patients with the following specific disorders:
    a. cholecystitis
    b. cholelithiasis
4. Discuss topics which nurses utilize in patient teaching.
5. Utilize the evaluation data to identify modifications in NCP.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth *Textbook of Medical-Surgical Nursing* 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 876-882, 334
2. Given, Barbara and Sandra Simmons *Gastrointerology in Clinical Nursing* 3rd Ed. St. Louis: C.V.Mosby Co.. 1979 pp. 181-208
3. Thorpe, Constance J. and Joseph Caprini "Gallbladder Disease: Current Trends and Treatments" *AJN* Dec. 1980 pp. 2181-2185

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. *Medical-Surgical Nursing* St. Louis: C.V. Mosby Co. 1987 pp. 691-698

E. LEARNING ACTIVITIES:

1. Prior to class, read the materials listed under Learning Resources.
2. Participate in classroom discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer

Brenda is a 33 year old, obese mother of four who was suffering with acute gallbladder inflammation. She is 5'4" tall and weighs 190 lbs. the physician decided to delay surgical intervention until her acute symptoms subsided. Questions 1-6 apply to this situation.

1. Brenda's initial course of treatment would most likely consist of:

   a. analgesics and antibiotics
   b. intravenous fluids
   c. nasogastric suction
   d. all the above

2. After her acute attack, Brenda was limited to low-fat liquids. As foods were added to her diet, she needed to know to avoid:

   a. cooked fruits
   b. eggs and cheese
   c. lean meats
   d. rice and tapioca

3. Brenda was being medicated with chenodeoxycholic acid. The nurse needed to tell her that the drug may not be effective if taken in conjunction with:

   a. dietary cholesterol
   b. estrogens
   c. oral contraceptives
   d. all the above

4. Because Brenda's symptoms continued to recur, she was scheduled for gallbladder surgery. Brenda signed a consent form for removal of her gallbladder and ligation fo the cystic duct and artery. She was scheduled to undergo a:

   a. cholecystectomy
   b. cholecystostomy
   c. choledochostomy
   d. choledocholithotomy

5. Postoperative nursing observation would include assessing for:

   a. indicators of infection
   b. leakage of bile into the peritoneal cavity
   c. obstruction of bile drainage
   d. all the above

6. Brenda would need to know that fat restriction is usually lifted when the biliary ducts dilate to accommodate bile once held by the gallbladder. This takes about:

   a. 1 week
   b. 2-3 weeks
   c. 4-6 weeks
   d. 2 months

ANSWERS: 1. D, 2. B, 3. D, 4. A, 5. D, 6. C

MODULE VI

THE OXYGENATION NEED

THE OXYGENATION NEED

Prior to the beginning of this module, turn to APPENDIX IV and review all the listed objectives. The student is responsible for all the knowledge and skills identified in the objectives.

A. INTRODUCTION:

This module examines the oxygenation need as defined by the Austin Community College Associate Degree Program: "The need for inspiration, expiration, diffusion and perfusion of the oxygen necessary to maintain the integrity of body systems." This unit is divided into the following subunits:

I. Overview of the Nursing Care of the Patient Experiencing Various Stressors Affecting their Ability to Maintain the Oxygen Need.

II. The Nursing Process as it Applies to the Patient Experiencing Stressors of Systemic Arteriosclerosis and Atherosclerosis.

III. The Nursing Process as it Applies to the Patient Experiencing Stressors of Hypertension.

IV. The Nursing Process as it Applies to the Patient Experiencing the Stressors of Peripheral Vascular Circulation.

V. The Nursing Process as it Applies to the Patient Experiencing Stressors of Coronary Artery Disease and Angina Pectoris.

VI. Overview of the Nursing Care of Patients Experiencing Stressors of Affecting Oxygen at the Respiratory Level.

VII. The Nursing Process as it Applies to the Patient Experiencing the Stressors of Dysfunction of the Upper Respiratory System.

VIII. The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction of the Lower Respiratory System.

MODULE OBJECTIVES

I. Apply the nursing process to an adult patient experiencing the stressors of systemic arteriosclerosis and athersclerosis.

II. Apply the nursing process to an adult patient experiencing the stressors of hypertension.

III. Apply the nursing process to an adult patient experiencing the stressors of a dysfunction in the peripheral vascular circulation.

IV. Apply the nursing process to an adult patient experiencing the stressors of dysfunction of the upper respiratory system.

V. Apply the nursing process to an adult patient experiencing the stressors of dysfunction of the lower respiratory system.

VI. Apply teaching/learning principles when providing patients with strategies for maintaining their need for oxygen.

VII. Recognize the relationship between learning and professional growth by assuming the responsibility of meeting submodular objectives.

SUBMODULE I

Overview of the Nursing Care of the Patient Experiencing Various Stressors Affecting the Ability to Maintain the Oxygenation Need.

A. INTRODUCTION:

This module examines the assessment of the cardiovascular system and presents some of the concepts relative to an understanding of effects of the dysfunction of the cardiovascular system.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Discuss the concept of structural integrity
2. Discuss the hemodynamics of the cardiovascular system.
3. Explain the anatomical and physiological process of a progressive obstruction in the cardiovascular system.
4. Discuss the following diagnostic tests and evaluative procedures used to assess the ability to maintain the oxygenation need as it relates to the cardiovascular system:
    a. chest x-ray
    b. fluoroscopy
    c. angiocardiography
    d. electrocardiogram
    e. exercise stress test
    f. heart catheterization
    g. blood coagulation tests, PT-PTT
    h. lipid profiles
    i. digitalis level
    j. peripheral arteriography
5. Identify nursing responsibilities/actions related to the above tests/procedures.
6. Discuss commonly occuring signs and symptoms of the inability to maintain the O_2 need as it relates to the cardiovascular system.
7. Discuss the rationale and nursing implications for common therapeutic interventions:
    a. medications: Beta-adrenergic blocking agents; Cardiovascular drugs-- anticoagulants, cardiac glycosides, Vasodilators (coronary and peripheral), antihypertensives, hypocholesterolemic and antilipemics, diuretics, Calcium Channel Blockers.
    b. O_2 Administration
    c. rest
    d. diet therapy: low cholesterol diets, low sodium diets, reducing diets.
    e. progressive exercise
8. Identify eight risk factors which may increase the incidence of atherosclerotic heart disease.

9. Identify the groups at risk for cardiovascular dysfunction.
10. Discuss community resources which provide for early detection and prevention of cardiovascular dysfunction.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 551-563, 626-632
2. Williams, Sue Rodwell Essentials of Nutrition and Diet Therapy St. Louis: C.V.Mosby Co. 1986 pp. 453-473
3. Johnson, Gertrude and Brenda Johanson "Beta Blockers" American Journal of Nursing July 1983 Vol. 83 No. 7 pp. 1034-1403
4. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986
5. Prestwood. Dorothy "The Concept of Structural Integrity" ATTACHMENT

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 1065-1100

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer.

Mr. Anderson is a 45 year old, successful executive with a major oil firm. Lately he experienced fatigue and frequent episodes of chest pressure that were relieved with rest. He had requested a complete physical examination. The nurse was to assist with the cardiac assessment. Questions 1-3 relate to this situation.

1. The nurse took a baseline blood pressure measurement after the patient had rested for 10 minutes in a supine position. The reading that would reflect a reduced pulse pressoure would be:

   a. 140/90
   b. 140/100
   c. 140/110
   d. 140/120

2. Five minutes after the initial blood pressure measurement was taken, the nurse assessed additional readings with the patient in a sitting and then a standing position. The reading indicative of an abnormal postural response would be:

   a. lying 140/110; sitting 130/100; standing 135/106.
   b. lying 140/110; sitting 135-112; standing 130/115.
   c. lying 140/110; sitting 130/100; standing 120/90.
   d. lying 140/110; sitting 130/108; standing 125/108.

3. The nurse returned Mr. Anderson to the supine position and measured for jugular vein distention. The reading that would initially indicate increased central venous pressure would be:

   a. 4 cm of water pressure
   b. 6 cm of water pressure
   c. 10 cm of water pressure
   d. 12 cm of water pressure

4. The coronary arteries arise from the:

   a. aorta near the origin of the left ventricle
   b. pulmonary artery at the apex of the right ventricle.
   c. pulmonary vein near the left atrium
   d. superior vena cava at the origin of the right atrium.

5. The pacemaker for the entire myocardium is the:

   a. atrioventricular junction
   b. bundle of His
   c. Purkinje fibers
   d. sinoatrial node

6. The intrinsic pacemaker rate of ventricular myocardial cells is:

   a. greater than 80 beats/min.
   b. 60-80 beats/min.
   c. 40-60 beats/min.
   d. less than 40 beats/min.

7. In order for blood to flow from the right ventricle to the pulmonary artery, all of the following conditions must be met EXCEPT that:

   a. the atrioventricular valves must be closed
   b. the pulmonic valve must be open
   c. right ventricular pressure must be less than the pulmonary arterial pressure.
   d. right ventricular pressure must rise with systole.

8. The first heart sound is generated by the:

   a. closure of the aortic valve
   b. closure of the atrioventricular valves
   c. opening of the atrioventricular valves
   d. opening of the pulmonic valve

9. Heart rate is stimulated by all of the following EXCEPT:

   a. excess thyroid hormone
   b. increased levels of circulating catecholamines
   c. the sympathetic nervous system
   d. the vagus nerve

10. Stroke volume of the heart is determined by the:

    a. degree of cardiac muscle stretch(precontraction)
    b. intrinsic contractility of the cardiac muscle
    c. pressure gradient against which the muscle ejects blood during contraction.
    d. above factors

11. Myocardial cell damage can be reflected by high levels of cardiac enzymes. The most sensitive indicator of all cardiac enzymes is:

    a. alkaline phosphatase
    b. creatine phosphokinase
    c. lactic dehydrogenase
    d. serum glutamic-oxaloacetic transaminase (SGOT)

ANSWERS: 1.D, 2. C, 3.D, 4. A, 5. D, 6. D, 7. C, 8. B
9. D, 10. D, 11. B

THE CONCEPT OF STRUCTURAL INTEGRITY

A house with a hole in its roof is suffering from impaired structural integrity. It is less capable of performing its functions of providing shelter, protection, and comfort for its inhabitants. The degree of interference with the function of the roof depends upon the amount of damage it has suffered. A roof with a small leak is far more capable of performing its function than one that is half or completely demolished. In the former, damage to the structure is easily repaired. In the later extensive repairs or intervention is required.

Likewise any human structure, cell, organ or system, that is somehow altered is less capable of performing its function. The degree of disruption in homeostasis and resulting interference with adaptive capacity depends upon the amount of damage to the structure and the degree of interference with functioning. Either minimal or extensive, self or other generated repair is required. For example, a bone with a small hairline fracture and no displacement in response to trauma may be capable of self-repair as the damage to the structure is minimal. A more extensive fracture requires external intervention for alignment before the repairative process may proceed with the guarantee of restored structural integrity.

Damage to structural integrity and resulting impairment of function can be examined from a cause and effect relationship. A few examples of this cause and effect relationship are presented here. You will probably be able to think of many others.

Trauma caused from either intrinsic or extrinsic agents can damage the structural integrity of a cell, an organ or an entire system. A small cut can, for example, damage the cells of the layers of the skin. A bacterial organism infecting the damaged area can also damage the structural integrity of the cells. The cellular enzymes released from the cells injured by the cut or bacterial toxins may cause even more damage to the cells in the area. Whether the cell is damaged from extrinsic causes (the cut or bacteria) or from intrinsic causes (release of enzymes from the cell) its capacity for function is altered. A blow to any area of the body, if forceful enough, may damage structural integrity. The veins in the area, for example, may be damaged with resulting exudation of serum or blood into the tissues of the area. In this instance the function of the veins is disrupted and the function of the part it serves may also be affected. As another example, chronic inhalation of cigarete smoke may eventually affect the structural integrity of the cilia that line the respiratory tract with a resulting decrease in ability to remove mucous secretions from the respiratory tree. Some other examples of damage to structural integrity resulting from trauma include broken bones, a ruptured spleen or degeneration of the mucosal lining of the gastrointestinal tract from ingestion of corrosive agents such as lye.

Some other examples of causes of damage to structural integrity are malnutrition and obstructive processes such as arteriosclerosis. An inadequate intake of protein may cause atrophy of muscle tissue and resulting interference with their ability to function. Arteriosclerosis affects the structural integrity of the blood vessels with resulting decrease in ability to compensate for increases or decreases in the arterial blood pressure.

The maintenance of structural integrity and hence functional capacity will be the aim of many of your nursing interventions. How this concept applies in specific situations will become apparent as you study different nursing problems throughout the year. In general all factors that contribute to the maintenance of health ultimately affect the maintenance of structural integrity. These factors include a well-balanced diet, sleep, rest, exercise and provisions for safety.

Dorothy Prestwood
August, 1974

DEFINITION OF TERMS RELATED TO STRUCTURAL INTEGRITY

Aneurysm -- a sac formed by dilation of the walls of a blood vessel, usually an artery

Contusion -- injury to tissues without breakage of skin: a bruise. In a contusion blood from the broken vessels accumulates in surrounding tissues, producing pain, swelling and tenderness. A discoloration appears as a result of blood seepage under the surface of the skin.

Dissecting aneurysm -- one in which rupture of the inner coat of the blood vessel has allowed blood to escape and collect between the layers of the vessel wall

Function -- the special, normal or proper action of any part or organ

Functional -- pertaining to or fulfilling a function

Fusiform aneurysm -- in this type of aneurysm the whole artery becomes dilated and is spindle-shaped

Integrity -- the state of being unimpaired; soundness; completeness; unity

S[illegible]cular aneurysm -- an aneurysm projecting from only one side of the vessel

Structural -- pertaining to organic structure

Structural disease -- a disease effecting changes in any structure

Sources:

Miller and Keane. Encyclopedia and Dictionary of Medicine and Nursing, 1978.

Brunner. Textbook of Medical-Surgical Nursing, 1984.

Taber. Taber's Cyclopedic Medical Dictionary, 1981.

The American Heritage Dictionary of the English Language, 1969.

SUBMODULE II

The Nursing Process as it Applies to the Patient Experiencing Stressors of Systemic Arteriosclerosis and Atherosclerosis.

A. INTRODUCTION:

Arteriosclerosis is the most common form of dysfunction of the arterial system. It is a process which includes as its most common form, artherosclerosis. This submodule examines the effects of the process on PERSON through the use of the nursing process.

B. TERMINOLOGY LIST:

1. **Arteriosclerosis**
2. **Atheroma**
3. **Atherosclerosis**
4. **Intima**
5. **Media**
6. **Adventitia**
7. **Plaque**
8. **Intermittent claudication**
9. **Bruits**
10. **Underperfusion**
11. **Ischemia**
12. **Necrosis**
13. **Pallor**
14. **Rest**
15. **Aneurysm**
16. **Monckeberg's medial sclerosis**
17. **Collateral circulation**
18. **Peripheral arterial occlusive disease**

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of arteriosclerosis/atherosclerosis based upon:
    a. explanation of the altered anatomy and physiology of the arterial walls.
    b. description of the major and minor risk factors in order of importance.
    c. identification of groups at risk
    d. explanation of the process in relation to:
        (1) morbidity, mortality
        (2) course (signs and symptoms)
        (3) complications
    e. discussion of the usual medical management
        (1) goals of therapy
        (2) diet therapy: low cholesterol diets, reducing diets.

        3. medications: (actions and nursing implications) Antilipemics--clofibrate (Atromid S), Cloterotyramine (Questran), Destrothyroxine (Choloxin), Nicotinic acid.
        4. exercise, rest
    2. Utilize appropriate nursing princples in planning care for the patient experiencing the stressors of arteriosclerosis/atherosclerosis.
    3. Demonstrate the ability to safely perform the following skills/interventions:
        a. palpate peripheral arterial pulses for quality
        b. assess for peripheral edema
        c. apply antiembolism hoses
        d. assess blood pressure in all extremities
        e. auscultate for presence of arterial bruits
        f. accurately record data and interventions
    4. Discuss topics which nurses utilize in patient teaching.
    5. Utilize the evaluation data to identify modifications in the nursing care plan.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp 547-559, 626-632, 668-670
2. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp 1208-1212

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST;

Read each question carefully and select the best answer.

1. The most important factor in regulating the caliber of blood vessels is:

   a. hormonal secretion
   b. independent arterial wall activity
   c. the influence of circulating chemicals
   d. the sympathetic nervous system

2. Saturated fats are strongly implicated in the causation of atherosclerosis. Saturated fats would include all of the following EXCEPT:

   a. corn oil
   b. eggs and milk
   c. meat and butter
   d. solid vegetable oil

3. The American diet is known to be high in fat intake. The amount of calories supplied by fat is approximately:

   a. 20% of the total caloric intake
   b. 40% of the total caloric intake
   c. 60% of the total caloric intake
   d. 80% of the total caloric intake

4. Lumen narrowing with atherosclerosis is caused by:

   a. plaque formation on the tunica intima
   b. scarred endothelium
   c. thrombi formation
   d. all the above

5. All the following are types of atherosclerosis lesions EXCEPT:

   a. fatty streaks
   b. fibrous plaques
   c. ischemic lesions
   d. complicated lesions

6. Risk factors for atherosclerosis include all the following EXCEPT:

   a. high fat diet
   b. emotional stress
   c. birth control pills
   d. the delivery of large babies

ANSWER TRUE OR FALSE:

7. _____ atherosclerosis and arteriosclerosis have the same pathologic process.

8. _____ the most common result of atherosclerosis is a narrowing of the lumen of the arteries.

ANSWER: 1.D, 2. A, 3. B, 4. D, 5. C, 6. D,

7. TRUE 8. TRUE

SUBMODULE III

The Nursing Process as it Applies to the Patient Experiencing Stressors of Hypertension.

A. INTRODUCTION:

Hypertension has been labeled "The Silent Killer". Many individuals are asymptomatic; unaware they are hypertensive. This submodule examines the stressor of hypertension as it related to the O_2 need.

B. TERMINOLOGY LIST:

1. **Hypertension**
2. **Hypotension**
3. **Postural hypotension**
4. **Essential hypertension**
5. **Benign hypertension**
6. **Malignant hypertension**
7. **Pheochromocytoma**
8. **Peripheral resistance**
9. **Transcient Ischemic Attack**
10. **Cerebral Vascular Accident**
11. **Non-compliance**
12. **Hypertensive crisis**

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of hypertension based upon:
    a. explanation of the altered anatomy and physiology.
    b. comparison of benign and malignant hypertension; essential and secondary hypertension.
    c. discussion of essential hypertension in relation to:
        (1) incidence and predisposing factors
        (2) identification of groups and individuals at risk.
        (3) course and commonly occuring complications (hypertensive crisis).
        (4) identification of screening measures
    d. usual diagnostic tests/evaluative procedures:
        (1) target organ exams
        (2) VMA
        (3) renal arteriograms
        (4) serum renin
    e. usual medical management:
        (1) medications: (actions and nursing implications)
            (a) diuretics-- thiazides (hydrodiuril), potent (Lasix), potassium sparing (Aldactone).
            (b) agents depressing Sympathetic Nervous System--Aldomet, Inderal.

- (c) agents acting on Vascular Smooth Muscle-Apresoline, Minipress, Hyperstat.
- (d) Rauwolfia Alkoloids-- Reserpine
- (2) Diet therapy: reducing diets, sodium diets, low cholesterol diets..
- (3) alterations in lifestyles.
- f. description of commonly occuring problems of patients experiencing stressors of hypertension.
- g. explanation of patient non-compliance in management of hypertension.
- h. impact of stressors of hypertension on PERSON

2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of hypertension.
3. Demonstrate the ability to safely perform the following skills/interventions:
   - (a) measurement of arterial blood pressure in all extremities.
   - (b) assessment of standing blood pressure
   - (c) accurately record data and interventions.
4. Discuss topics which nurses utilize in patient teaching.
5. Utilize the evaluation data to identify modifications in the nursing care plan.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadlephia: J.B. Lippincott Co. 1984 pp. 118-119, 219-220, 676-687

2. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

3. Schoof, Carolyn Sievers "Common Questions Patients Ask" American Journal of Nursing May 1980 pp. 926-927

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 1213-1221

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer.

Fred is a 43 year old construction worker who has a history of hypertension. He smokes 2 packs of cigarettes per day, is nervous about the possibility of being unemployed, and has difficulty coping with stress. His present concern is calf pain during minimal exercise that decreases with rest. Questions 1-4 relate to this situation.

1. The nurse assessed Fred's symptoms as being associated with peripheral arterial occlusive disease. Her diagnosis was most likely:

   a. alteration in tissue perfusion related to insufficient circulation.
   b. dysfunctional use of extremities related to muscle spasms.
   c. impaired mobility related to stress associated with pain.
   d. impairment in muscle use associated with pain on exertion.

2. The nurse knew that the specific symptom of peripheral arterial occlusive disease is:

   a. intermittent claudication
   b. phlebothrombosis
   c. postphlebitis syndrome
   d. thrombophlebitis

3. Additional symptoms to support the nurse's diagnosis would include all the following EXCEPT:

   a. blanched skin appearance when the limb is elevated.
   b. diminished distal pulsations
   c. reddish blue discoloration to the limb when it is dependent.
   d. warm and rosy coloration to the extremity after exercise.

4. The nurse knew that in health teaching, she should mention suggested methods to increase arterial blood supply, which would include:

   a. a planned program involving systematic lowering of the extremity below heart level.
   b. Buerger-Allen exercises
   c. graded extremity exercises
   d. all the above

Georgia was diagnosed as having essential hypertension at 30 years of age when serial blood pressure recordings showed her average readint to be 170/100 mm Hg. Georgia is a grade school teacher in a low socioeconomic area and has been obese for 10 years. Questions 5-9 relate to this situation.

5. The nurse knew that essential hypertension:

   a. can be managed only with drug therapy
   b. has no identifiable cause
   c. is positively correlated with diabetes mellitus
   d. is secondary to parenchymal renal disease

6. The kidneys help maintain the hypertensive state in essential hypertension by:

   a. increasing their elimination of sodium in response to aldosterone secretion.
   b. releasing renin in response to decreased renal perfusion.
   c. secreting acetylcholine, which stimulates the sympathetic nervous system to constrict major vessels.
   d. doing all the above

7. Renal pathology associated with essential hypertension can be identified by:

   a. a urine output greater than 2000 ml/24 hours
   b. a urine specific gravity of 1.005
   c. hyponatremia and decreased urine osmolality
   d. increased BUN and creatinine levels

8. Georgia was prescribed Aldactone, 50 mg once every day. The nurse knew that spironolactone (Aldactone):

   a. blocks the reabsorption of sodium, thereby increasing urinary output.
   b. inhibits renal vasoconstriction, which prevents the release of renin.
   c. interferes with fluid retention by inhibiting aldosterone.
   d. prevents the secretion of epinephrine from the adrenal medulla.

9. Health education for Georgia would include advising her to:

   a. adhere to her dietary regimen
   b. become involved in a regular program of exercise
   c. take her medication as prescribed
   d. do all the above

ANSWERS: 1.A, 2. A, 3. D, 4. D, 5. B, 6. B, 7. D,
8. C, 9. D

SUBMODULE IV

The Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction in Peripheral Vascular Circulation.

A. INTRODUCTION:

This submodule explores the basic assessment of common manifestations and therapeutic interventions utilized in the care of the patient with disorders of the peripheral vascular circulation (arteries, veins, and lymphatics).

B. TERMINOLOGY LIST

1. Buerger-Allen Exercises
2. ASO
3. Sympathectomy
4. Endarterectomy
5. Venography
6. Ultrasonic Doppler Flowmeter
7. Plethysmography
8. Brodie-Trendelenburg test
9. Perthes' test
10. Varicosities
11. Lymphangitis
12. Lymphangiography

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of the peripheral vascular circulation based upon:
    a. explanation of the altered anatomy and physiology of the peripheral circulation--arteries, veins and lymphatics.
    b. discussion of the methods used to assess insufficient circulation.
    c. discussion of the conditions affecting the circulation within the arteries.
        (1) comparing arteriosclerosis obliterans, thromboangitis obliterans, and Raynaud's phenomenon in regard to:
            (a) pathophysiology
            (b) assessment
            (c) medical management--adequate nutrition/hydration; activity/exercise/rest; skin care; avoidance of smoking--cold--trauma; action-- analgesics (Darvon and Levo-Dromeran), peripheral vasodilators (controversy); surgery vascular grafts, explaining [illegible] endarterectomy, explaining sympathectomy.
        (2) the pathophysiology/classification of aneurysms
        (3) describing the clinical manifestations of:
            (1) aneurysms
            (b) ruptured aneurysm
            (c) dissecting aneurysm
        (4) discussing the usual medical management of aneurysms:
            (a) action and nursing implications of drugs- antihypertensives (Aldomet, Reserpine); antiarrhythmics- Inderal; diuretics (Diuril, Hydrodiuril).
            (b) activity/rest
            (c) surgery-- resection, bypass, grafts
        (5) differentiating arterial embolism and arterial thrombosis in regard to:
            (a) pathophysiology
            (b) assessment
            (c) medical management
    d. discussion of the conditions affecting the circulation within the veins:
        (1) differentiating between the vein disorders (phlebitis, thrombosis, thrombophlebitis and deep vein thrombosis) in regard to:
            (a) pathophysiology/etiology
            (b) assessment
            (c) medical management: preventive measures; action and nursing implications of drugs, anticoagulants, heparin, coumadin, thrombolytic, enzymes, streptokinase; surgery.

        (2) describing the condition that results in venous insufficiency-- varicose veins.
            (a) pathophysiology
            (b) assessment
            (c) medical management: activity/rest; surgery- ligation, stripping, sclerotherapy.
    e. discussion of conditions affecting the circulation within the lymphatic system:
        (1) describing lymphedema in relation to:
            (a) pathophysiology
            (b) assessment
            (c) medical management
    f. differentiation between the type of dressing applied with arterial and venous leg ulcers.
    g. explanation of the impact of the stressors on PERSON.
2. Utilize appropriate nursing princiles in planning care for the patient experiencing stressors of peripheral vascular circulation.
3. Discuss topics which nurses utilize in patient teaching.
    (a) measures to increase blood supply to the tissues- exercises.
    (b) prevention of vasoconstriction
    (c) skin care
    (d) nutrition
    (e) elastic stockings
    (f) pre-post operative support
4. Utilize the evaluation data to identify modifications in nursing care.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth
   Textbook of Medical-Surgical Nursing 5th Ed.
   Philadelphia: J.B. Lippincott Co. 1984
   pp. 659-676, 681-693, Workbook pp. 132-137

2. Nursing '86 Drug Handbook Sprinhouse PA:
   Springhouse Corp. 1986

3. Doyle, Jeanne "All Leg Ulcers Are Not Alike:
   Managing and Preventing Arterial and Venous Ulcers"
   Nursing '83 Jam. 1983 pp. 58-63

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing
   St. Louis: C.V. Mosby Co. 1987 pp. 1195-1213

E. LEARNING ACTIVITIES:

1. Prior to class, read the materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer

1. With peripheral arterial insufficiency, leg pain during rest can be reduced by:

   a. elevating the limb above heart level
   b. lowering the limb so it is independent
   c. massaging the limb after application of cold compresses.
   d. placing the limb in a plane horizontal to the body.

2. Clinical manifestations of venous insufficiency would include all the following EXCEPT:

   a. a mottled appearance to the skin
   b. collapsed veins when legs are dependent
   c. moderate to severe steady pain
   d. tenderness over the veins with swelling

3. Buerger's disease is characterized by all the following EXCEPT:

   a. arterial thrombus formation and occlusion
   b. lipid deposits in the arteries
   c. redness or cyanosis in the limb when it is dependent.
   d. venous inflammation and occlusion

4. The most common cause of all thoracic aortic aneurysms is:

   a. a congenital defect in the vessel wall
   b. atherosclerosis
   c. infection
   d. trauma

5. A nurse who suspects the presence of an abdominal aortic aneurysm would look for the presence of:

   a. a pulsatile abdominal mass
   b. low back pain
   c. infection
   d. trauma

6. To save a limb affected by occlusion of a major artery, surgery must be initiated before necrosis develops, which is usually:

   a. within the first 4 hrs
   b. between 6-10 hrs
   c. between 12-24 hrs
   d. within 1-2 days

7. Raynaud's disease is a form of:

   a. arterial vessel occlusion due to multiple emboli that develop in the heart and are transported through the systemic circulation
   b. arteriolar vasoconstriction, usually of the fingertips, that results in coldness, pain and pallor.
   c. peripheral venospasm in the lower extremities due to valve damage resulting from prolonged venous stasis.
   d. phlebothrombosis related to prolonged v asoconstriction resulting for overexposure to the cold.

8. When administering anticoagulant therapy, the nurse needs to monitor the clotting time to make certain that it is within the therapeutic range of:

   a. 1-2 times the normal control
   b. 2-3 times the normal control
   c. 3.5 times the normal control
   d. 4.5 times the normal control

9. When caring for a patient who has started anticoagulant therapy with Coumadin, the nurse would know not to expect effects for:

   a. at least 12 hrs
   b, the first 24 hrs
   c. 2-3 days
   d. 1 week

10. A nurse would teach a patient with chronic venous insufficiency to do all the following EXCEPT:

   a. avoid constricting garments
   b. elevate the legs above the heart level for 30 minutes every 3 hours.
   c. sit as much as possible to rest the valves in the legs.
   d. sleep with the foot of the bed elevated about 6 inches.

11. Nursing measures to promote a clean leg ulcer wound include:

    a. applying wet to dry isotonic saline dressings, which when changed, would remove necrotic debris.
    b. flushing out necrotic material with hydrogen peroxide.
    c. using an ointment that would treat the ulcer by enzymatic debridement.
    d. all the above'

12. A varicose vein is caused by:

    a. phlebothrombosis
    b. an incompetent venous valve
    c. venospasm
    d. venous occlusion

13. Clinical manifestations of deep vein obstruction would include:

    a. edema and pain
    b. pigmentation changes
    c. ulcerations
    d. all the above

14. Postoperative nursing management for vein ligation and stripping would include all the following EXCEPT:

    a. dangling the legs over the side of the bed for 10 minutes every 4 hours for the first 24 hours.
    b. elevating the foot of the bed to promote venous blood return.
    c. maintaining elastic compression of the leg continuously for about one week.
    d. starting the patient ambulating 24-48 hours after surgery.

15. Coumarin is used for the treatment of lymphedema because it:

    a. decreases the tissue colloidal oncotic pressure, thus allowing interstitial fluid to move back into the capillaries.
    b. promotes platelet aggregation, which increases the plasma osmotic pressure, which in turn pulls fluid out of the interstitial spaces.
    c. reduces blood viscosity, thus promoting the transudation of interstitial fluid into the capillary.
    d. does all the above

ANSWERS: 1.B, 2. B, 3. B, 4. B, 5. B, 6. B, 7. B,
8. B, 9. C, 10. C, 11. D, 12. B, 13. D,
14. A, 15. A

SUBMODULE V

The Nursing Process as it Applies to the Patient Experiencing Stressors of Coronary Artery Disease and Angina Pectoris.

A. INTRODUCTION:

CAD is the most common form of heart disease in the United States. Although a few unusual diseases result in coronary artery obstruction, essentially all CAD is a result of atherosclerosis. This submodule examines CAD through the framework of the nursing process.

B. TERMINOLOGY LIST:

1. CAD
2. ASHD
3. Congestive heart failure; acute, chronic
4. thrombus
5. embolism
6. pulmonary edema
7. angina pectoris
8. arrhythmia
9. ischemia
10. infarction
11. hyperlipidemia
12. type A personality
13. LDL
14. HDL
15. coronary insufficiency
16. CAHD
17. coronary occulsion

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of CAD or Angina based upon:
    a. explanation of the altered anatomy and physiology of the heart caused by coronary artery obstruction.
        (1) explain the relationship between hyperlipidemia, CAD and angina.
    b. identification of commonly occuring signs and symptoms.
    c. identification of predisposing factors
    d. recognition of patients at risk
    e. explanation of the course and complications of each.

- f. comparison of the various types of angina:
    - (1) unstable angina
    - (2) nocturnal
    - (3) intractable angina
    - (4) Prinzmetal's angina
- g. identification of the usual diagnostic tests and evaluative procedures:
    - (1) chest x-ray
    - (2) electrocardiography
    - (3) ambulatory monitoring
    - (4) exercise stress test
    - (5) angiocardiography
    - (6) heart catheterization
- h. identification of the usual medical management:
    - (1) medications: (actions and nursing implications); nitroglycerine (all types), isordil, inderal, digitalis preparations, diuretics, calcium channel blockers (Verapamil).
    - (2) rest/activity
    - (3) diet therapy
    - (4) O_2 therapy
    - (5) exercise program
- i. impact of the stressors of CAD and angina on PERSON.
- j. identification of commonly occuring problems of patients experiencing stressors of CAD and angina.

2. Utilize appropriate nursing principles in planning care for the patient experiencing stressors of CAD and angina.
3. Demonstrate the ability to safely perform the following skills/interventions:
    - a. assessment of cardiac system
    - b. accurately record data and actions
4. Discuss topics which nurses utilize in patient teaching
5. Utilize the evaluation data to identify modifications in the nursing care plan.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co.1984 pp. 547-563, 626-634, 668-675

2. Nursing '86 Drug Handbook' Springhouse PA: Springhouse Corp. 1986

3. Kern, Leslie and Anna Gawlihski "Stage Managing Coronary Artery Disease" Nursing '83 April 1983 pp. 34-40

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 1159-1176

E. LEARNING ACTIVITIES:

1. Prior to class, read materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read the clinical background information for each situation. Circle the correct answer.

Ermelina is a 64 year old retired secretary who was admitted to the medical-surgical area for management of chest pain due to angina pectoris. Questions 1-4 relate to this situation.

1. The nurse knew that the basic cause of angina pectoris is believed to be:
    a. arrhythmias triggered by stress
    b. insufficient coronary blood flow
    c. minute emboli discharged through the narrowed lumen of the coronary vessels.
    d. spasms of the vessel walls due to excessive secretion of adrenalin.

2. The medical record lists a probable diagnosis of chronic, stable angina. The nurse knows that Ermelina's pain:
    a. has increased progerssively in frequency and duration.
    b. is incapacitating
    c. never occurs at rest and is predictable
    d. usually occurs at night and may be relieved by sitting upright.

3. Ermelina had nitroglycerine at her bedside to take prn. The nurse knew that nitroglycerine acts in all of the following ways EXCEPT by:
    a. causing venous pooling throughout the body
    b. constricting arterioles to lessen peripheral blood flow.
    c. dilating the coronary arteries to increase oxygen supply.
    d. lowering systemic blood pressure

4. Ermelina took a nitroglycerine tablet at 10 AM after her morning care. It did not relieve her pain, so she repeated the dose. Ten minutes later, and still in pain, she called the nurse who:

   a. administered a prn dose of Valium, tried to calm her, and recommended that she rest in a chair with her legs dependent to encourage venous pooling.
   b. assisted her to the supine position, gave her oxygen at 6 liters/min., and advised her to rest in bed.
   c. helped her to a comfortable position, gave her oxygen at 2 liters/min., and called her physician.
   d. suggested that she double her previous dose in 5 minutes and try to sleep in order to decrease her body's need for oxygen.

5. The common hyperlipidemia phenotype that is associated with elevated levels of cholesterol is:

   a. phenotype I
   b. phenotype II
   c. phenotype III
   d. phenotype IV

6. The pain of angina pectoris is produced primarily by:

   a. coronary vasoconstriction
   b. movement of thromboemboli
   c. myocardial ischemia
   d. the presence of atheromas

7. Obesity is a life style risk factor in coronary artery disease. Choose the example of an obese individual (IBW refers to ideal body weight).:

   a. IBW is 115 pounds; current weight is 127 pounds
   b. IBW is 142 pounds; current weight is 170 pounds
   c. IBW is 165 pounds; current weight is 194 pounds
   d. IBW is 175 pounds; current weight is 201 pounds

ANSWERS: 1.B, 2. C, 3. B, 4. C, 5. B, 6. C, 7. B

SUBMODULE VI

Overview of Nursing Care of Patients Experiencing Stressors of Affecting O_2 at the Respiratory Level.

A. INTRODUCTION:

This submodule examines common diagnostic and evaluative procedures for assessment, common respiratory treatment modalities, and nursing interventions in caring for the patient with stressors affecting respiratory functioning.

B. TERMINOLOGY LIST

1. **pleura**
2. **parietal pleura**
3. **visceral pleura**
4. **surfactant**
5. **lung compliance**
6. **hypoxia**
7. **hypocapnea**
8. **mediastinum**
9. **hemoptysis**
10. **orthopnea**
11. **atelectasis**
12. **metabolic acidosis**
13. **metabolic alkalosis**
14. **respiratory acidosis**
15. **respiratory alkalosis**

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Assess the patient experiencing stressors affecting the O_2 Need.
2. Discuss the common signs and symptoms displayed by patients experiencing dysfunctions of the respiratory system.
3. Identify the relationship of pathophysiologic classifications to the manifestations listed above.
4. Discuss the purpose, procedure, and results of the following diagnostic and evaluative procedures as related to the respiratory system:
   a. nasal swabbing, throat culture, sputum culture
   b. bronchoscopy/bronchogram
   c. thoracentesis
   d. biopsies
   e. arterial blood gas studies
   f. chest x-ray
   g. CBC- lytes
   h. angiography
   i. tomograms
   j. CT scans
5. Discuss nursing responsibilities/actions related to the above procedures.
6. Explain the following therapeutic interventions and the rationale used in meeting the oxygenation need of the patient experiencing the stressor of dysfunction of the respiratory system:
   a. respiratory therapy
   b. diet therapy
   c. physical therapy
   d. drug therapy
7. Discuss topics nurses utilize in patient-teaching when planning for prevention of respiratory disorders and assisting in maintaining the O_2 Need:
   a. cigarette smoking
   b. air pollution
   c. other

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth
   Textbook of Medical-Surgical Nursing 5th Ed.
   Philadelphia: J.B. Lippincott Co. 1984
   pp. 437-453
2. Shrake, Kevin "The ABG's " Nursing '79 Sep. 1979 p. 26-30
3. HANDOUT-- Oxygen Delivery System

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing
   St. Louis: C.V. Mosby Co. 1987 pp. 1259-1287

2. Smith, Sandra and Donna Duell Clinical Nursing Skills
   Los Altos CA: National Nursing Review 1985

E. LEARNING ACTIVITIES:

1. Prior to class, read the materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer

Mr. Kecklin was scheduled for a bronchoscopy for the diagnostic purpose of locating a pathologic process. Questions 1-5 apply to this situation:

1. Because a bronchoscopy was ordered, the nurse knew that the suspected lesion was not in the:

   a. bronchus
   b. larynx
   c. pharynx
   d. trachea

2. Nursing measures prior to the bronchoscopy should include:

   a. obtaining an informed consent
   b. supplying information about the procedure
   c. withholding food and fluids for 6 hours before the test.
   d. all the above

3. The nurse is aware that possible complications of bronchoscopy would include all the following EXCEPT:

   a. aspiration
   b. gastric perforation
   c. infection
   d. pneumothorax

4. Post-bronchoscopy, Mr. Kecklin should be observed for:

   a. dyspnea
   b. hemoptysis
   c. tachycardia
   d. all the above

5. Following the bronchoscopy, Mr. Kecklin:

   a. can be given ice chips and fluids after he demonstrates that he can gag.
   b. should immediately be given a house diet to alleviate his hunger resulting from his required test.
   c. should initially be given iced ginger ale to prevent vomiting and possible aspiration of stomach contents.
   d. will need to remain NPO for 6 hours to prevent pharyngeal irritation.

Mrs. Lillis was admitted to the clinical area for a thoracentesis. The physician wanted to remove excess air from the pleural cavity. Questions 6-10 apply to this situation.

6. Nursing responsibilities prior to the thoracentesis would include:

   a. informing Mrs. Llis about pressure sensations that would be experienced during the procedure.
   b. making sure that chest roentgenograms ordered in advance have been completed.
   c. seeing that the consent form has been explained and signed.
   d. all the above

7. For the thoracentesis, the patient would be assisted to any of the following positions EXCEPT:

   a. lying on her unaffected side with the bed elevated 30-40 degrees.
   b. lying prone with the head of the bed lowered 15-30 degrees.
   c. sitting on the edge of the bed with the feet supported and her arms and head on a padded over-the-bed table.
   d. straddling a chair with her arms and head resting on the back of the chair.

8. Nursing intervention would include exposing the entire chest even though the thoracentesis site would normally be in the mid-clavicular line, between the:

   a. first and second intercostal space
   b. second and third intercostal space
   c. third and fourth intercostal space
   d. fourth and fifth intercostal space

9. Nursing observations after the thoracentesis would include assessment for:

   a. blood-tinged mucus
   b. signs of hypoxemia
   c. tachycardia
   d. all the above

10. A chest x-ray film is usually ordered post=thoracentesis to rule out:

    a. pleurisy
    b. pneumonia
    c. pneumothorax
    d. pulmonary edema

11. The term used to describe the maximum volume of air exhaled after maximum inspiration is:

    a. forced expiratory volume
    b. maximal voluntary ventialtion
    c. tidal volume
    d. vital capacity

12. Nursing instructions for a patient who is scheduled for a perfusion lung scan would include informing him that:

    a. a mask will be placed over his nose and mouth during the test.
    b. he will be expected to lie under the camera
    c. the imaging time will take 20-40 minutes
    d. all the above will occur

ANSWERS: 1.C,2. D, 3. B, 4. D, 5. A, 6. D, 7. B
8. B, 9. D, 10. C, 11. D, 12. D

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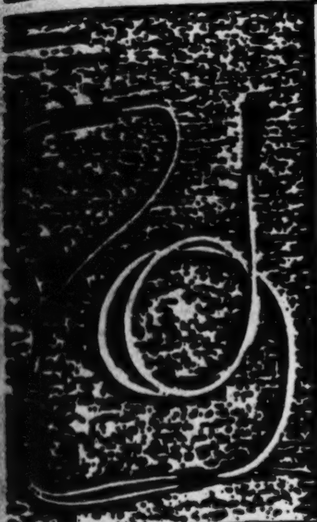
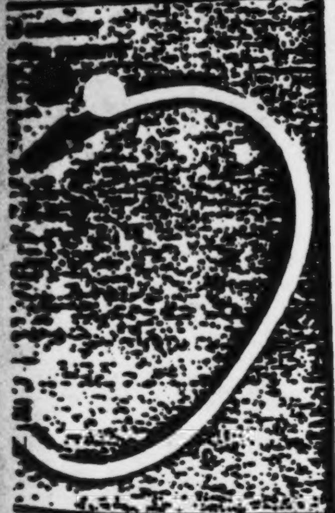
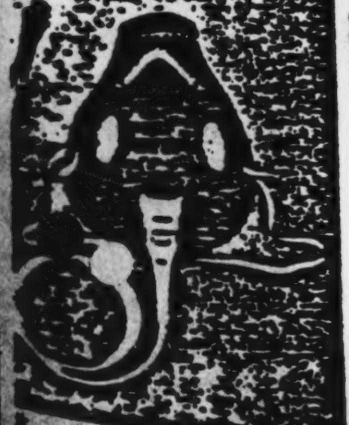
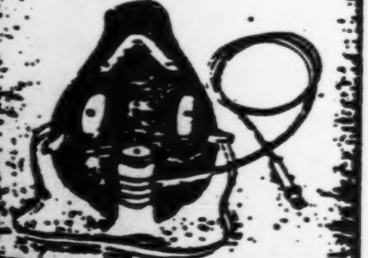
[illegible] delivery systems

[illegible] should know about low- and high-flow oxygen delivery systems

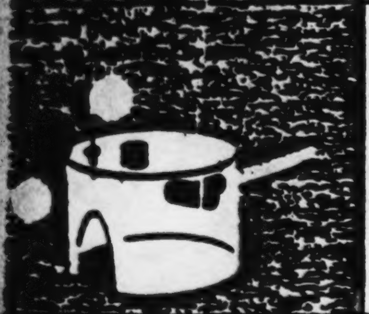
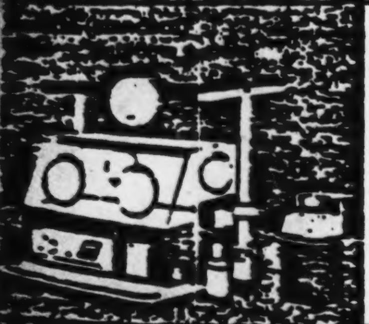
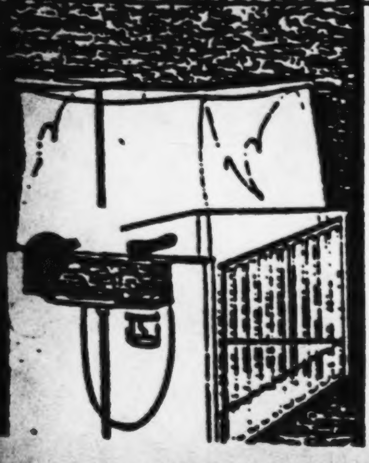
[illegible]	Benefits	Problems to expect	To avoid complications
	• Safe and simple • Comfortable; easily tolerated • Nasal prongs can be shaped to fit facial contour. • Effective for delivering low oxygen concentrations • Allows freedom of movement; doesn't interfere with eating or talking • Inexpensive; disposable • Can provide continuous, positive airway pressure for infants and children.	• Can't deliver oxygen concentrations greater than 40% • Can't be used when patient has complete nasal obstructions; for example, mucosal edema or polyps • May cause headaches or dry mucous membranes if flow rate exceeds 6 liters per minute • Can dislodge easily • Strap may pinch chin if adjusted too tightly. • Patient must be alert and cooperative to help keep cannula in place.	• Remove and clean cannula every 8 hours with a wet cloth. Give good mouth and nose care. • If patient's restless, tape cannula in place. • Check for pressure areas under nose and over ears. Apply gauze padding, if necessary. • Moisten lips and nose with lubricating jelly, but take care not to occlude cannula.
	• Allows freedom of movement; doesn't interfere with eating or talking • Provides stable delivery if patient's restless • Inexpensive; disposable • Doubles as a suction catheter.	• Can't deliver oxygen concentrations greater than 45% • May cause headaches or sinus pain if flow rate exceeds 6 liters per minute • May dry nostrils and mucous membranes • Catheter lumen may clog with secretions. • Kinks easily • Less comfortable than nasal cannula; tape may irritate skin. • Patients lacking epiglottal reflexes may experience abdominal distention, especially at high-flow rates.	• Change catheter every 8 hours, alternating nostrils; give good mouth and nose care. • Check for skin irritation caused by tape. • Use for short-term therapy. • Moisten nose with lubricating jelly. • Use with caution in comatose or debilitated patients.
	• Effectively delivers high oxygen concentrations • Humidification can be increased by using large-bore tubing and aerosol mask. • Doesn't dry mucous membranes of nose and mouth.	• Hot and confining; may irritate skin • Tight seal, necessary for higher oxygen concentration, may cause discomfort. • Interferes with eating and talking • Can't deliver less than 40% oxygen • Impractical for long-term therapy.	• Don't use on patient with COPD. • Place pads between mask and boney facial parts. • Periodically massage face with fingertips. • Wash and dry face every 2 hours. • For adequate flush, maintain flow rate of 5 liters per minute. • Don't adjust strap too tightly. • Remove and clean mask every 8 hours with a wet cloth.

What you should know about low- and high-flow oxygen delivery systems continued

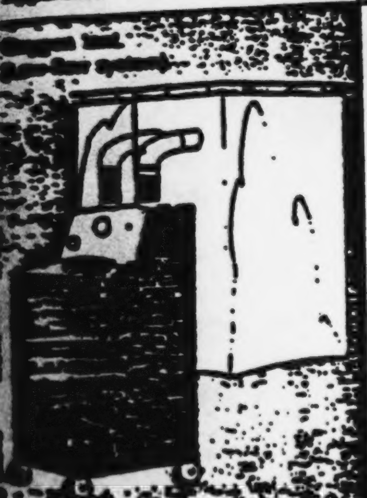
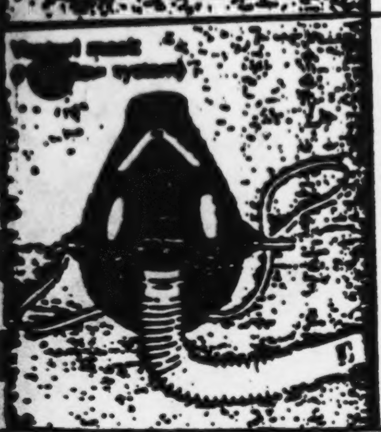
Apparatus	Benefits	Problems to expect	To avoid complications
Face tent **(High- or low-flow system)**	• Provides high humidity • Functions as a high-flow system when attached to a venturi nebulizer • Substitutes for face mask if patient can't tolerate having his nose covered; for example, if his nose is broken • Doesn't dry mucous membranes.	• Hot and confining; may irritate skin • Interferes with eating and talking • Doesn't deliver precise oxygen concentrations without venturi attachment; patient can rebreathe CO_2 unless venturi system is used. • Impractical for long-term therapy.	• Same as for simple face m • Watch for signs of oxygen toxicity, especially when a venturi attachment is not use
Partial rebreathing mask (Low-flow system)	• Oxygen reservoir bag lets patient rebreathe his exhaled air, which is high in oxygen content. This increases his fraction inspired oxygen concentration (FIO_2). • Safety valve allows room air to be inhaled if oxygen source fails. • Effectively delivers higher oxygen concentrations (35% to 60%) • Easily humidifies oxygen • Doesn't dry mucous membranes • By inserting a rubber flange over the reservoir bag, you can convert most types to nonrebreather masks.	• Tight seal, necessary to ensure accurate oxygen concentrations, may cause discomfort. • Interferes with eating and talking • Hot and confining, may irritate skin • Bag may twist or kink. • Impractical for long-term therapy.	• Never let bag totally deflat during inhalation. Increase liter flow, if necessary. • Avoid twisting bag. • Keep mask snug to prevent inhalation of room air. • To initially fill bag, apply mask as patient exhales.
Nonrebreathing mask (Low-flow system) 	• Delivers the highest possible oxygen concentration (60% to 90%) short of intubation and mechanical ventilation • Effective for short-term therapy • Doesn't dry mucous membranes • Can be converted to a partial rebreathing mask, if necessary.	• Requires a tight seal, which may be difficult to maintain, may cause discomfort • May irritate skin • Impractical for long-term therapy.	• Never let bag totally defla • Avoid twisting bag • Keep mask snug to preve inhalation of room air • Make sure that all rubber flaps remain in place. • Watch patient closely for signs of oxygen toxicity.
[illegible]ch collar or mask (Lo[illegible] system)	• Provides high humidity • Swivel adapter allows tubing to attach on either side. • Frontal port permits suctioning. • Elastic ties allow you to pull mask from tracheostomy without removing it.	• If condensation is allowed to collect, it can drain into tracheostomy. • If secretions collect in the collar, stoma can become infected. • Heated aerosol may cause bleeding if used on fresh trach. • Intake of room air through the port lowers oxygen concentration.	• Empty condensation buil at least once every 2 hours • Remove and clean mask ery 4 hours with water. • Don't cover exhalation p • Make sure nebulizer deli constant mist.

ygen delivery systems

you should know about low- and high-flow oxygen delivery systems continued

[illegible]	Benefits	Problems to expect	To avoid complications
	• Chimney extension functions as partial rebreather. • Offers high humidity • Allows greater patient mobility • Can be used for trach or endotrach • Functions as a high-flow system when attached to a venturi system.	• May stick to tracheostomy (from humidity or secretions) • Condensation can collect in tube and drain into tracheostomy.	• If tube sticks to tracheostomy, gently twist off. Then, clean tube with hydrogen peroxide, rinse with water and replace. • Empty condensation buildup at least once every 2 hours. • Keep chimney extension in place. If you don't, the fraction inspired oxygen concentration (FIO_2) will drop drastically. • Make sure humidifier or nebulizer has enough water to create mist. • Watch for signs of oxygen toxicity, especially if used as a low-flow system.
	• Enclosed and compact • Provides more precise oxygen concentration than isolette can by itself. Lets you care for infant's lower torso while upper torso's inside hood. • Functions as a high-flow system when connected to a venturi delivery system • Offers high humidity.	• Can irritate skin • Must be used with a nebulizer • Can't feed infant while he's inside hood • Active infant can move hood.	• Pad hood with towel or foam rubber. • Keep bedding around head dry. • Empty condensation buildup from tubing every 2 hours. • When using heated nebulizer, check hood temperature every 4 hours so it stays between 94° F (34.4° C.) and 96° F (35.6° C.).
	• Provides controlled temperature and humidity • Isolates infants with contagious diseases • Can be used as a high-flow oxygen system to deliver precise oxygen concentrations through an oxygen hood. (To do this, you insert the oxygen tubing through the sleeve at the end port of the isolette.)	• When used without oxygen hood, isolette can deliver only 40% or 100% oxygen. Also, oxygen concentration can fluctuate.	• If 100% oxygen concentration is desired, keep port flaps closed tightly • If oxygen hc [illegible] sn't used, check oxygen concentration every 4 hours. • If you're using an oxygen hood with isolette, see instructions listed above.
	• Usually used for children • Delivers high humidity and aerosolized therapy • Allows child to move freely • Disposable canopy.	• If you must open tent, for any reason, remember it'll take 15 to 20 minutes to restore oxygen concentration. • Water or ice reservoir must be filled every 6 to 8 hours. • High humidity promotes bacterial growth. • Isolates patient.	• Check temperature and oxygen concentration every 4 hou • Use rubber sheet on bed, under linen, to prevent oxygen from escaping through mattress • Use bath blanket over bottom sheet to absorb excess moisture; change linen and gown every 2 hours to keep patient warm and dry. • Give patient care through ten opening whenever possible. When giving bath or changing linen, tuck tent under pillow to conserve oxygen. • Prevent patient from feeling isolated by talking to him. Use normal tone; the tent doesn't impair hearing.

[illegible] you should know about low- and high-flow oxygen delivery systems continued

[illegible]	Benefits	Problems to expect	To avoid complications
[illegible] tent (low-flow system) 	• Provides high humidity; temperature can be evenly controlled. • Delivers oxygen to severely burned patients without need for an irritating face mask.	• If you must open tent, for any reason, remember it'll take 15 or 20 minutes to restore oxygen concentration. • High humidity promotes bacterial growth. • Condensation may collect in tubing. Empty it at least once every 4 hours. • Isolates patient.	• Use rubber sheet on bed, under linen, to prevent oxygen from escaping through mattress. • Maintain oxygen flow at 10 to 15 liters per minute for adequate flush. • Check temperature and oxygen concentration every 4 hours; check for leaks in tent. • Keep patient warm and dry. Give patient care through tent opening whenever possible. When giving bath or changing linen, tuck tent under pillow to conserve oxygen. • Prevent patient from feeling isolated by talking to him. Use a normal tone; the tent doesn't impair hearing.
[illegible] mask ([illegible] system) 	• Delivers exact oxygen concentrations despite patient's respiratory pattern • Diluter jets can be changed, or dial turned, to change oxygen concentration. • Doesn't dry mucous membranes • Can be used to deliver humidity or aerosol therapy • Never delivers more than the prescribed oxygen concentration, even if knob on flowmeter is accidentally bumped and liter flow is increased.	• Hot and confining; mask may irritate skin. • Fraction inspired oxygen concentration (FIO_2) may be altered if mask doesn't fit snugly, if tubing's kinked, if oxygen intake ports are blocked, or if less than recommended liter flow is used. • Interferes with eating and talking • Condensation may collect and drain on patient if humidification is being used.	• Check arterial blood gas measurements frequently. • Soften skin around mouth wi petroleum jelly to prevent irritation. • Remove and clean mask every 8 hours with a wet cloth.

[illegible]termining oxygen percentages by liter flow

Do you want to know the approximate percentage of oxygen (FIO_2) your patient is getting from a low-flow delivery system? Use this chart to tell you. Just line up the *method* you're using to deliver the oxygen with the *number* of liters per minute. *Important:* Keep in mind these figure apply only to patients who are breathing at a normal rate and rhythm

Method of delivery	Oxygen delivered at 2 liter/min.	Oxygen delivered at 3 liter/min.	Oxygen delivered at 4 liter/min.	Oxygen delivered at 5 liter/min.	Oxygen delivered at 6 liter/min.	Oxygen delivered at 8 liter/min.	Oxygen delivered at 10 liter/min.	Oxygen delivered at 12 liter/min.	Oxyg deliv at 15 liter/
Cannula/catheter	23%-28%	28%-30%	32%-36%	40%	max. 44%	X	X	X	X
Simple mask	X	X	X	40%	45%-50%	55%-60%	X	X	X
Partial rebreathing mask	X	X	X	X	35%	45%-50%	60%	60%	6
[illegible]rebreathing mask	X	X	X	X	55%-60%	60%-80%	80%-90%	90%	9
[illegible], croupette	X	X	X	X	X	X	30%-40%	40%-50%	5
Isolette standard use	X	X	X	X	35%-40% (with flag up) 80%-90% (with flag down)	40% (with flag up) 90% (with flag down)	40% (with flag up) 95%-100% (with flag down)	X	

[illegible] recommended for use at this liter flow
[illegible]

SUBMODULE VII

The Nursing Process as it Applies to the Patient Experiencing the Stressors of Dysfunction of the Upper Respiratory System.

A. INTRODUCTION:

This submodule explores the use of the nursing process as it applies to the care of the patient with specific oxygenation needs related to the upper respiratory system.

B. TERMINOLOGY LIST: NONE

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of dysfunction of the upper respiratory system based upon:
    a. discussion of the pathophysiology involved in common dysfunctions of the nose, sinuses, pharynx, and larynx in relation to: (epistaxis, rhinitis, sinusitis, pharyngitis, laryngitis).
        (1) etiology
        (2) signs and symptoms
        (3) complications
    b. explanation of diagnostic tests and evaluative procedures.
    c. explanation of the usual medical management utilized to assist the patient experiencing stressors of the upper respiratory system:
        (1) actions and nursing implications of medications:
            (a) adrenergics- neosynephrine, Sudafed
            (b) antibiotic- penicillin
            (c) narcotic/analgesic- codeine
            (d) local anestheitcs- Lidocaine
            (e) antihistamines
            (f) pyribenzamine
            (g) vitamins- Vitamin C
        (2) diet therapy-- small frequent feedings, bland diets, temperature- regulated diets.
        (3) surgical interventions
    d. impact of stressors of the dysfunctions of the upper respiratory system on PERSON.
2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of the upper respiratory system.
3. Explain the role of the nurse in prevention of various stressors on dysfunction in the upper respiratory tract.

4. Compare and contrast care planned for a patient with pharyngitis to that with laryngitis.
5. Discuss topics which nurses utilize in teaching patients experiencing these stressors.
6. Demonstrate the ability to safely perform the following:
   a. nasal packs
   b. nasal and throat sprays
   c. other
7. Utilize the evaluation data to identify modifications in the nursing care plan for patients experiencing stressors of the upper respiratory system.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing, 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 421-436

2. Nursing '86 Drug Handbook Springhouse PA: Springhouse Corp. 1986

3. "Current Care for Common Infections" Patient Care 14, Dec. 15, 1980 pp. 27

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing St. Louis: C.V. Mosby Co. 1987 pp. 1289-1309

E. LEARNING ACTIVITIES:

1. Prior to class, read the materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete Clinical Focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer

Gilberta was a 14 year old high school student who was sent by the school nurse to the emergency room of a local hospital for epistaxis. Questions 1-3 apply to this situation.

1. Initial nursing measures to stop the nasal bleeding should include:

   a. compressing the soft, outer protion of the nose against the midline septum for 5-10 minutes continuously.
   b. keeping Gilberta in the upright position to promote vasoconstriction in the nasal mucous membrane.
   c. telling her to breathe through her nose and to refrain from talking.
   d. all the above

2. The nurse should expect that emergency medical treatment may include insertion of a cotton pledget moistened with:

    a. an adrenergic blocking agent
    b. aqueous epinephrine
    c. protomine sulfate
    d. vitamin K

3. The nurse should be aware that nasal packing used to control bleeding can be left in place:

    a. no longer then 2 hrs
    b. an average of 12 hrs
    c. an average of 24 hrs
    d. anywhere from 2-6 days

Heidi is a 17 year old who graduated from high school last month. She just underwent a rhinoplasty to straighten her nose. The nurse on the clinical area received Heidi from the recovery room. Questions 4-7 apply to this situation.

4. The nurse read the postoperative orders, which included all the following EXCEPT:

    a. apply ice compresses intermittently as needed for pain and swelling.
    b. give a liquid diet today and diet of choice in the morning.
    c. place the patient in a high Fowler's position for 8 hours to prevent seepage of blood down the back of the pharynx.
    d. report frequency of swallowing followed by belching.

5. The nurse should regularly check for the chief postoperative complication of:

    a. aspiration
    b. dyspnea
    c. hemorrhage
    d. sinusitis

6. The nurse should tell the patient that the nasal packing will be removed after:

    a. 6-8 hrs.
    b. 24 hrs.
    c. 48 hrs
    d. 72 hrs

7. The patient was advised that normal activities could be resumed after:

    a. 48 hrs
    b. 2-5 days
    c. 2 weeks
    d. 1 month

8. **Health teaching for viral rhinitis would include advising the patient to:**

   a. blow his nose gently to prevent spread of the infection
   b. blow through both nostrils to equalize the pressure
   c. rest in order to promote overall comfort
   d. do all the above

9. Nursing intervention for a fractured nose would include all the following EXCEPT:

   a. application of cold compresses to decrease swelling and control bleeding.
   b. assessment of respirations to detect any interference with breathing.
   c. observation for any clear fluid drainage from either nostril.
   d. packing each nostril with a cotton pledget to minimize bleeding and help maintain the shape of the nose during fracture setting.

10. Nursing measures associated with the uncomplicated common cold would include all the following EXCEPT:

   a. administering prescribed antibiotics to decrease the severity of the viral infection.
   b. informing the patient about the symptoms of secondary infection, the major complication of a cold.
   c. suggesting adequate fluid intake and rest
   d. teaching people that the virus is contagious 2 days before symptoms appear and during the first part of the symptomatic phase.

11. Nursing suggestions for a patient with chronic sinusitis would include:

   a. adequate fluid intake
   b. increased humidity
   c. local heat applications to promote drainage
   d. all the above

12. Nursing management for a patient with acute pharyngitis would include:

   a. applying an ice collar for symptomatic relief of a severe sore throat.
   b. encouraging bed rest during the febrile stage of the illness.
   c. suggesting a liquid or soft diet during the acute stage of the disease.
   d. all the above

ANSWERS: 1.D, 2.B, 3. D, 4. C, 5. C, 6. C, 7. C,
8. D, 9, D, 10. A, 11. D, 12. D

SUBMODULE VIII

Nursing Process as it Applies to the Patient Experiencing Stressors of Dysfunction of the Lower Respiratory System.

A. INTRODUCTION:

This submodule explores the use of the nursing process as it applies to the care of the patient with specific oxygenation needs related to stressors of dysfunction of the lower respiratory system.

B. TERMINOLOGY LIST:

1. tracheobronchitis
2. bronchopneumonia
3. pneumonitis
4. pneumonia
5. COPD
6. pleurisy
7. pleural effusion
8. lung abscess
9. empyema
10. bronchiectasis
11. "cupping and clapping"
12. emphysema
13. bronchospasm
14. cor pulmonale
15. pursed lip breathing
16. diaphragmatic breathing
17. Cheyne-Stokes respirations
18. Kussmaul respirations

C. LEARNING OBJECTIVES:

Upon completion of the study of this submodule, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of dysfunction of the lower respiratory system based upon:
   a. explanation of altered anatomy and physiology of the lower respiratory system:
      (1) acute tracheobronchtis
      (2) atelectasis
      (3) pleurisy and pleural effusion
      (4) pneumonias
      (5) lung abscess, empyema, bronchiectasis
      (6) COPD (asthma, chronic bronchitis, emphysema)

- b. discussion of the pathophysiology involved in common disorders of the lower respiratory system as listed above in relation to:
  - (1) etiology
  - (2) predisposing factors
  - (3) identification of groups/individuals at risk
  - (4) signs and symptoms
  - (5) complications
  - (6) four types of pneumonia
  - (7) comparison of atelectasis, pleurisy and pleural effusion.
  - (8) comparison of lung abcess, empyema, bronchiectasis.
  - (9) comparison of asthma, acute bronchitis and emphysema and how they lead to the development of COPD.
- c. explanation of diagnostic and evaluative procedures for the stressors affecting the lower respiratory system.
- d. explanation of the usual medical management utilized to assist the patient experiencing stressors of the lower respiratory system:
  - (1) action and nursing implications of medications: Antimicrobials--Ampicillin, Ceclor, Erythromycin; Adrenergics--Aminophylline (all types), Bronkosol; Adrenocorticosteroids-- Vanceril, Celestone, Prednisone; Narcotic expectorants--Tessalon; Expectorants-- Mucomyst; Misc. -- Intal.
  - (2) diet therapy: small frequent feedings, hydration.
  - (3) respiratory therapy
- e. the impact of stressors of the dysfunction of the lower respiratory system on PERSON.

2. Utilize appropriate nursing principles in planning care for the patient experiencing stressors of the lower respiratory system.
3. Demonstrate the ability to safely perform the following:
   - a. breathing retraining
   - b. postural drainage /chest physiotherapy
   - c. nasal and oral suctioning
4. Discuss topics which nurses utilize in teaching patients experiencing these stressors.
5. Identify the role of the nurse in the pevention of stressors of dysfunction of lower respiratory system.
6. Utilize the evaluation data to identify modifications in the nursing care plan of the patient experiencing stressors of the lower respiratory system.

D. LEARNING RESOURCES:

ESSENTIAL:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth
   Textbook of Medical-Surgical Nursing 5th Ed.
   Philadelphia: J.B. Lippincott Co. 1984
   pp. 437-452, 507-527, 532-533
2. Nursing '86 Drug Handbook Springhouse PA:
   Springhouse Corp. 1986
3. FILMSTRIPS:
   a. Postural Drainage-- Localized Lung Infection
      WF 310 P858
   b. Metabolic Acidosis & Alkalosis WD 220 M587
   c. Respiratory Acidosis & Alkalosis WF 140 R434
   d. Physical Assessment: Heart & Lungs
      WB 205 P578 1976, PROGRAMS 1,2,3
   e. Respiratory Care: Concepts & Techniques,
      Lippincott Learning System WF 145 H295 C 1980
   f. Anatomy & Physiology PARTS I and II (review)
   g. Ventilation: PARTS I and II (review)
   h. Oxygen Therapy: Princples & Practice (review)
   i. Chest Therapy: Coughing & Deep Breathing (review)
   j. Chest Therapy: Bronchial Drainage, Percussion
      and Vibration
   k. Chest Therapy: Suctioning

SUPPLEMENTAL:

1. Phipps, W.J. and Long, B.C. Medical-Surgical Nursing
   St. Louis: C.V. Mosby Co. 1987 pp. 1311-1370

E. LEARNING ACTIVITIES:

1. Prior to class, read and view the materials listed under Learning Resources.
2. Participate in lecture/discussion
3. Complete clinical focus

F. PRE-TEST/POST-TEST:

Read each question carefully and select the best answer.

Theresa is a 36 year old single parent who lives in a small twin house with her two daughters. She is a waitress and was diagnosed as having bacterial pneumonia. Questions 1-6 relate to this situation:

1. The nurse was informed that Theresa had the most common strain of bacterial pneumonia. The nurse suspected that the infecting agent was:
    a. Haemophilis influenzae
    b. Klebsiella
    c. Proteus
    d. Streptococcus pneumoniae

2. All the following are manifestations of bacterial pneumonia EXCEPT:
    a. a rapidly rising fever
    b. bradycardia
    c. stabbing chest pain
    d. tachypnea

3. The nurse expected that Theresa would be medicated with the usual antibiotic of choice, which is:
    a. cephalosporin
    b. clindamycin
    c. erythromycin
    d. penicillin-G

4. Theresa is expected to respond to antibiotic therapy:
    a. within 6 hours
    b. between 1-2 days
    c. by the 4th day
    d. after 7 days

5. The nurse is aware that Theresa may develop arterial hypoxemia because:
    a. bronchospasm causes alveolar collapse, which decreases the surface area necessary for perfusion.
    b. mucosal edema occludes alveoli, thus producing a drop in alveolar oxygen.
    c. venous blood is shunted from the right to the left side of the heart.
    d. all the above are true

6. Nursing management includes assessment for a complication(s) such as:
    a. atelectasis
    b. hypotension and shock
    c. pleural effusion
    d. all the above

-. Mrs. Weston, an emphysemic of 25 years, was admitted to the hospital with a diagnosis of bronchitis. Questions 7-12 relate to this situation.

7. During assessment, the nurse noted the presence of a "barrel chest" which she knew was due to a:

   a. compensatory expansion of the bronchial airway
   b. decrease in intrapleural pressure
   c. loss of lung elasticity
   d. progressive increase in vital capacity

8. The nurse knew to be alert for the major presenting symptom of emphysema, which is:

   a. bradypnea
   b. dyspnea
   c. expiratory wheezing
   d. fatigue

9. An arterial blood gas reading that would be consistent with a diagnosis of emphysema would be:

   a. pH, 7.32; PaO$_2$, 70mm Hg; PaCO$_2$, 50 mm Hg
   b. pH, 7.37; PaO$_2$, 90mm Hg; PaCO$_2$, 42 mm Hg
   c. pH, 7.39; PaO$_2$, 80mm Hg; PaCO$_2$, 35 mm Hg
   d. pH, 7.40; PaO$_2$, 85mm Hg; PaCO$_2$, 42mm Hg

10. Mrs. Weston was being medicated with a bronchodilator to reduce airway obstruction. Nursing actions would include observing for the side-effect(s) of:

   a. arrhythmias
   b. central nervous system excitement
   c. tachycardia
   d. all the above

11. Diaphragmatic breathing would be recommended for Mrs. Weston because it does all the following EXCEPT:

   a. decrease respiratory rate
   b. decrease tidal volume
   c. increase alveolar ventilation
   d. reduce functional residual capacity

12. Oxygen was ordered ro Mrs. Weston. The nurse knew that the most effective delivery system would be:

   a. by a rebreathing bag that would deliver an oxygen concentration above 60%.
   b. through an oxygen mask set at 8 liters/min
   c. via a nasal cannula set at 6 liters/min
   d. with a Venturi mask that would deliver a predictable oxygen flow at about 24%.

Mrs. Yost was admitted to the intensive care unit for treatment of a pulmonary embolism. Prior to admission, she had been short-of-breath after walking up a flight of stairs. Questions 13-15 realte to this situation.

13. Based on Mrs. Yost's diagnosis, the nurse knew to look for a decrease in:

    a. alveolar dead space
    b. cardiac output
    c. pulmonary arterial pressure
    d. right ventricular workload of the heart

14. A primary nursing problem for Mrs. Yost would be:

    a. atelectasis
    b. bradycardia
    c. dyspnea
    d. hypertension

15. The nurse knew that Mrs. Yost's diagnosis was most likely confirmed by a (an):

    a. bronchogram
    b. chest roentgenogram
    c. electrocardiogram
    d. perfusion lung scan

ANSWERS: 1. 2. 3. 4. 5. 6. 7. 8.
9. 10. 11. 12. 13. 14. 15.

APPENDIX I

ENTRY LEVEL OBJECTIVES AND MATERIALS FOR THE SAFETY NEED

SAFETY NEED

I. Acquision of knowledge about the Safety Need

A. INTRODUCTION: The focus of these learning objectives is the aquisition of knowledge about the Safety Need. This knowledge provides the necessary basis for understanding how individuals normally maintain the Safety Need.

B. ENTRY LEVEL OBJECTIVES:
Prior to the study of the module on the Safety Need, the student should be able to:

1. Discuss the components of the Safety Need.
    - a. Physical Environment Component
        - (1) Explain the factors the nurse must consider in handling electrical equipment
        - (2) Discuss the factors the nurse must consider in regard to heat transfer.
        - (3) Explain the factors the nurse must consider in regard to handling equipment.
            - (a) discuss the three principles related to stability and balance.
        - (4) Explain the factors the nurse must consider in the physical movement of patients.
            - (a) discuss the principles of body mechanics.
            - (b) explain the physical and psychological benefits of exercise and ambulation.
            - (c) discuss the reasons for inadequate activity.
            - (d) describe the normal range of motion for each joint.
    - b. Biologic Environment Component
        - (1) Define nosocomial infection
        - (2) Discuss the principles of medical asepsis
        - (3) Identify factors having a direct effect on the patient's internal environment.
            - (a) discuss the term therapeutic interventions.
            - (b) compare invasive and non-invasive therapeutic interventions.
            - (c) explain how medications affect the internal environment.
            - (d) discuss the use of diet as a therapeutic intervention.
            - (e) explain the physiology of the integumentary system including the oral cavity and mucous membranes.
            - (f) identify the relationship between the integumentary system and the Safety Need.
2. Discuss how individuals normally maintain their Safety Need.
    - a. Identify the need for familiarity with the physical environment.
    - b. Explain the relationship of the proper use of body mechamics to the Safety Need.

C. Suggested Resources for Upgrading Entry Level Objectives:

1. Narrow, B.W. and Buschle, K.B. (1982) Fundamentals of Nursing Practice (pp. 72-73, 136-139, 304-305 (stop at CONTROL), 513-514, 520-525, 87-88, 90-94, (On reserve in library). New York: John Wiley & Sons.

2. Smith, S. and Duell, D. (1985) Clinical Nursing Skills (pp. 13-14, 78-86, 88-89). Los Altos, CA: National Nursing Review.

3. ATTACHMENTS:
   a. Principles of Body Mechanics
   b. Principles of Medical Asepsis
   c. Independent Review

VOCABULARY LIST

1. insulators
2. static electricity
3. dynamic electricity
4. macroshock
5. microshock
6. temperature gradient
7. conduction
8. convection
9. radiation
10. stability
11. center of gravity

tonus

13. contracture
14. atony
15. atrophy
16. posture
17. fulcrum
18. abduction
19. adduction
20. ankylosis
21. circumduction
22. extension
23. flexion
    a. dorsiflexion
    b. plantar flexion

24. foot drop

25. hyperextension

26. lateral rotation

27. medial rotation

28. rotation

29. supination

30. eversion

31. inversion

32. opposition

33. base of support

34. anatomical position

35. pronation

PHYSICAL ENVIRONMENTAL SAFETY

INDEPENDENT REVIEW

PART I -- Definitions

Match the correct definition to the listed term.

GROUP A

_____ 1. Bending or folding movements which decrease the size of the angle between the anterior surfaces of articulated bones with the exception of the knee and toe joints.

_____ 2. Straightening movements which return a part to its anatomic position.

_____ 3. Extending movements which position a body part beyond the anatomic position.

_____ 4. Movement of a body part away from the median place of the body.

_____ 5. Movement of a body part toward the median plane of the body.

_____ 6. Pivoting or moving a bone upon its own axis.

_____ 7. Movement which causes a bone to describe the surface of a cone as it moves.

_____ 8. Movement of the forearm which turns the palm forward as in the anatomic position.

_____ 9. Movement of the forearm which turns the back of the hand forward.

A. Hyperextension

B. Abduction

C. Flexion

D. Adduction

E. Extension

F. Circumduction

G. Pronation

H. Rotation

I. Supination

PART I -- Definitions (continued)

GROUP B

_____ 10. Front or ventral

_____ 11. Located behind or following after (dorsal).

_____ 12. Parts of the body nearest to the midsagittal plane.

_____ 13. Parts of the body farthest from the midsagittal plane which divide body into right and left halves.

_____ 14. Describes a position near the origin of any part.

_____ 15. Describes a position away from the source of any part.

_____ 16. Within or on the inside.

_____ 17. Exterior or on the lateral side.

_____ 18. Lower

_____ 19. Higher

_____ 20. Pertaining to the sole of the foot.

_____ 21. Pertaining to the palm of the hand.

A. Proximal

B. Posterior

C. Superior

D. Internal

E. Plantar

F. Anterior

G. Lateral

H. Inferior

I. External

J. Medial

K. Distal

L. Palmar

PART II -- Muscles and Their Function

Match the correct muscle to the listed functions.

______ 22. Contraction extends the lower leg.

______ 23. Contraction flexes the upper arm at shoulder joint.

______ 24. Contraction abducts the upper arm at the shoulder joint.

______ 25. Contraction extends the upper arm at the shoulder joint and helps adduct upper arm.

______ 26. Contraction flexes the lower arm at the elbow joint.

______ 27. Contraction extends the lower arm at the elbow joint.

______ 28. Contraction flexes the lower leg at the knee joint.

______ 29. Contraction extends the vertebral column in the lumbar region.

______ 30. Contraction flexes the vertebral column in the lumbar region.

______ 31. Contraction flexes the foot at the ankle joint.

______ 32. Contraction extends the foot at the ankle joint.

______ 33. Contraction extends the thigh at the hip joint.

______ 34. Contraction flexes the thigh at the hip joint.

______ 35. Contraction abducts the thigh at the hip joint.

______ 36. Antigravity muscles of the body which are overworked with poor standing posture.

______ 37. Muscles forming the inner girdle which when kept in good tone lessen strain on the back.

A. Pectoralis major

B. Biceps

C. Sacrospinalis or erector spinal

D. Rectus femoris

E. Latissimus dorsi

F. Hamstring group

G. Quadratus lumbarum

H. Fibialis anterior

I. Deltoid

J. Triceps

K. Iliopsoas

L. Gastrocnemius

M. Gluteus maximus

N. Gluteus medius and minimus

O. Rectus abdominis, obliquos abdominis, and gluteal muscles

P. Erector spinal glutei, quadreceps, femoris, gastrocnemius, and abdominal muscles

PART III -- Interruption of the peripheral distributions of spinal nerves results in loss of sensation and movement of the part served.

Matching:

_____ 38.	The largest nerve formed by the intercommunication of the sacral plexus which supplies the muscles of the lower extremity.	A.	Radial
_____ 39.	Enervate(s) the triceps, supinator of lower arm and extendors of the hand at the wrist joint.	B.	Sciatic
_____ 40.	Enervate(s) the pronators of the lower arm and flexors of the hand at the wrist joint.	C.	Lateral popliteal and anterior tibial
_____ 41.	Enervate(s) deltoid, pectoralis and biceps.	D.	Ulnar and median
_____ 42.	Enervate(s) the gastrocnemius, soleus, flexors of the toes and extendors of the foot at the ankle.	E.	Branches from plexus
_____ 43.	Enervate(s) the extendors of the toes, and the dorsiflexors and flexors of the foot.	F.	Medial and posterior popliteal and tibial

PART IV -- The Joints

Match the type of joint with the correct description and/or examples.

______ 44. Joints permitting widest range of movement.

______ 45. Elbow, knee, and ankle joints.

______ 46. Arch-shaped surface rotates about a rounded or peglike pivot.

______ 47. Ball-shaped head fits into concave socket.

______ 48. Wrist joint.

______ 49. Joints permitting movement in one plane -- like a hinged door.

______ 50. Spool-shaped surface fits into a concave surface.

______ 51. Joints permit gliding movement.

______ 52. Shoulder and hip joints.

______ 53. Joint between radius and ulna.

______ 54. Articulating surfaces are usually flat.

______ 55. Joints permit rotation movement.

______ 56. Joints between the carpal bones.

______ 57. Joint permits movement in two planes at right angles to each other.

______ 58. Oval-shaped condyle fits into elliptical cavity.

______ 59. A modified condyloid joint which permits freer movement. Example: joint between metacarpals of the thumb and the carpal of the wrist (multiangular bone).

A. Ball and socket

B. Hinge

C. Pivot

D. Gliding

E. Condyloid

F. Saddle

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KEY FOR INDEPENDENT REVIEW

PHYSICAL ENVIRONMENTAL SAFETY

PART I

1. C
2. E
3. A
4. B
5. D
6. H
7. F
8. I
9. G
10. F
11. B
12. J
13. G
14. A
15. K
16. D
17. I
18. H
19. C
20. E
21. L

PART II

22. D
23. A
24. I
25. E
26. B
27. J
28. F
29. C
30. G
31. H
32. L
33. M
34. K
35. N
36. P
37. O

PART III

38. B
39. A
40. D
41. E
42. F
43. C

PART IV

44. A
45. B
46. C
47. A
48. E
49. B
50. B
51. D
52. A
53. C
54. D
55. C
56. D
57. E
58. E
59. F

PRINCIPLES RELATED TO BODY MECHANICS

1. The point at which the body's mass is concentrated is the center of gravity which remains in the same vertical line whether in a sitting or standing position.

2. A stable base of support occurs when a vertical line drawn from the center of gravity falls within the base of support.

3. A wide base of support lowers the center of gravity and increases balance and stability.

4. Since gravity exerts a downward force, it is easier to push or pull an object than lift it.

5. The closer a force is applied to the center of gravity, the more effective and stable that force is.

6. Friction is resistive force between two objects. Rough and sticky surfaces increase the amount of friction.

7. The amount of work required to move an object is directly related to the amount of resistance and gravitational pull.

The use of the larger muscles is often less fatiguing than the use of smaller muscles.

9. Normal range of motion of a joint prevents limitation of movement and loss of joint function.

10. Bones are moved by contraction of the skeletal muscles.

11. Muscles are always in a mild state of contraction (tonus).

12. Muscle contraction is under control of the central nervous system.

13. Muscle contraction is influenced by the transport of nutrients and oxygen and by removal of waste by-products.

14. Muscle fatigue is caused by the build up of waste products.

15. Muscles need alternate periods of rest and work.

16. Almost every muscle has an antagonist that works in the opposite direction.

17. Muscles act in groups to perform work.

18. The strongest of any muscle group will dominate when there is insufficient stress placed on the group (contracture).

19. If muscles are not used they degenerate in size, shape and strength (atrophy).

20. If muscles are overused, they increase the size and shape (hypertrophy).

21. Muscle weakness and atrophy result in limited range of motion for the related joint.

PRINCIPLES RELATED TO BODY MECHANICS (continued)

22. Passive exercises provide only for joint mobility, not muscle tone.
23. Active exercises provide for joint mobility and muscle tone.
24. Moving a muscle beyond its elastic limits will result in tearing or damage.
25. Decreased activity affects all body systems.

Taken From: Brill, Esther Levine and Dawn Kilts. Foundations for Nursing Practice.
New York: Appleton-Century-Crofts, 1980. pp. 253-255.

PRINCIPLES RELATED TO MEDICAL ASEPSIS

Pathogens and nonpathogenic organisms constantly exist in the internal and external environments.

Ability of microorganisms to cause disease is related to agent characteristics, host defense, and environmental support.

Any factor which increases agent viability, decreases host resistance, or reduces environmental supports increases the likelihood of infection.

Any factor which decreases agent viability, increases host resistance, or increases environmental supports decreases the likelihood of infection.

The skin is the major protective barrier against invasion of microorganisms.

The skin or body tissues cannot be sterilized.

The body's secretions of tears, digestive juices, and mucus have bacteriostatic and bacteriocidal properties which protect against invasion.

Inflammation is a naturally occurring defense of the invasion by any type of foreign agents.

An intact immune system is necessary for successful defense against invading microorganisms.

Healing is related to the amount of tissue damage and the level of wellness of the individual.

Healing cannot occur in the presence of infection.

Infants, children, and older adults are more susceptible to skin damage and infection than other age groups are.

Level of growth and development is directly related to healing ability.

Body cavities have naturally occurring resident flora.

Dry, cool, well-ventilated areas are less conducive to microbial growth than moist, warm, unventilated areas.

Isolation techniques can set up a barrier to the transfer of microorganisms.

Maintenance of clean technique requires that only clean or sterile objects come in contact with clean objects.

Contamination in clean technique occurs if dirty objects come in contact with clean objects.

Cleaning of any object proceeds from clean to dirty areas.

Taken From: Ellis, Janice Rider and Elizabeth Ann Nowlis. Nursing: A Human Needs Approach. Boston: Houghton Mifflin Company, 1977. pp. 307-308.

II. The Nursing Process as it Applies to the Patient Experiencing Stressors Affecting the Ability to Maintain the Biologic Component of the Safety Need.

A. INTRODUCTION: The focus of these objectives is an examination of the biologic component of the Safety Need. The Nursing Process provides the framework.

B. ENTRY LEVEL OBJECTIVES:

Prior to the study of the module on the Safety Need, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors affecting his ability to maintain the biologic component of the Safety Need based upon:
   a. Identification of microorganisms normally found on the skin and mucus membranes.
   b. Explanation of the chain of infection
   c. Identification of the sources of pathogens in the hospital setting.
   d. Identification of the signs and symptoms of infection.
   e. Discussion of methods for interrupting the cycle of infection in the hospital setting.
   f. Identification of safety factors to consider when assisting a patient with his diet.
   g. Identification of safety factors to consider when a patient is receiving medications.
   h. Discussion of impact of stressors affecting the biologic component of the Safety Need on PERSON.

2. Discuss the components of a nursing plan of care to assist the patient experiencing stressors affecting his ability to maintain the biologic component of the Safety Need.
   a. Explain the scientific rationale for handwashing.
   b. Relate principles of medical asepsis to the handling of patient equipment.
   c. Discuss personnel involved in care of patient equipment.
   d. Discuss factors which facilitate ingestion and digestion.
   e. Explain intake and output

3. Demonstrate the ability to safely perform the following nursing skills:
   a. Handwashing
   b. Donning and removing gloves
   c. Care of "dirty" and "clean" equipment
   d. Assisting a patient with his tray
   e. Feeding a patient
   f. Intake and output
   g. Dressing change
   h. Heat and cold application

4. Apply principles involved in implementing the following isolation or precautionary procedures:
    a. Strict isolation
    b. Respiratory isolation
    c. Protective or reverse isolation
    d. Enteric precautions
    e. Wound and skin precautions
    f. Discharge precautions

5. Identify appropriate information which nurses may provide patients regarding maintenance of the biological component of the Safety Need.

6. Identify factors to consider in evaluation of nursing care.

C. Suggested Resources for Upgrading Entry Level Objectives:

1. Narrow, B.W. and Buschle, K.B. (1982) Fundamentals of Nursing Practice (pp. 304-310, 314-315, 413-414, 457). New York: John Wiley & Sons.

2. Smith, S. and Duell, D. (1985) Clinical Nursing Skills (pp. 144-147, 351-352, 463-465). Los Altos, CA. National Nursing Review.

3. AUDIOVISUALS:
    a. The Isolated Patient WX 165 185 1968
       Isolation Strict Technique WY 150- B11
    b. Isolation Technique WX 165 185 1968
    c. Principles of Isolation Technique WX 165 957 1975
    d. Protective Isolation WX 165 967 1975

VOCABULARY LIST

1. nosocomial infection
2. resistant bacteria
3. sterile
4. clean
5. bacteriostatic
6. bactericidal
7. antiseptic
8. medical asepsis
9. carrier
10. fomite
11. host
12. vector
13. pathogen
14. sterilization
15. vehicle
16. disinfectant
17. etiology
18. infection
19. emesis
20. reverse isolation
21. protective isolation
22. wound and skin precautions
23. discharge precautions
24. enteric precautions
25. respiratory isolation
26. double-bagging

III. The Nursing Process as it Applies to the Patient Experiencing Stressors Affecting the Ability to Maintain the Physical Environment Component of the Safety Need.

A. INTRODUCTION: These objectives examine the physical component of the Safety Need. The nursing process is the framework for the focus of assessment and selected nursing interventions which assist patients to maintain the physical environment component of the Safety Need.

B. ENTRY LEVEL OBJECTIVES:

Prior to the study of the module on the Safety Need, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors affecting ability to maintain the physical environment component of the Safety Need based upon:
    - a. Identification of the common causes of physical injury in the hospital setting.
    - b. Discussion of the effects of the normal aging process on the ability of an individual to maintain the physical environment component of the Safety Need.
    - c. Identification of common classifications of medications affecting the patient's ability to maintain the physical environment component of the Safety Need.
    - d. Identification of the hospital personnel involved in the maintenance of physical environment component of the Safety Need.
    - e. Explain the following Hospital Codes:
        - (1) Fire
        - (2) Arrests
        - (3) Bomb threats
        - (4) Disaster
    - f. Identification of the sources of data needed for assessment of a patient's ability to maintain this component of the Safety Need.
    - g. Discussion of the nursing assessment of the patient's ability to maintain this component of the Safety Need.
        - (1) Explain assessment of level of consciousness.
        - (2) Explain assessment of orientation
        - (3) Explain assessment of limitations/abilities of movement:
            - (a) explain the assessment of joint function.
        - (4) Explain assessment of the patient's immediate environment.
    - h. Discussion of the impact of stressors affecting this component of the Safety Need on PERSON.

2. Identify components of a nursing plan of care for patients experiencing stressors affecting the ability to maintain the physical environment component of the Safety Need.
    a. Identify appropriate nursing actions to assist a patient experiencing stressors affecting the ability to maintian the physical component of the Safety Need.
        (1) Discuss 5 types of exercises
        (2) Describe methods to prepare a patient for ambulation.
    b. Identify role/functions of the Physical Therapist.
    c. Identify appropriate principles from nursing and the physical sciences as rationale for nursing actions.
    d. Explain the nurse's ethical/legal responsibilities in relation to ensuring the physical environment component of the Safety Need.
    e. Explain the responsibility of a nursing student in case of injury to patient or self.

3. Demonstrate the ability to safely perform the following nursing skills/interventions:
    a. Assessment of body alignment
    b. Passive ROM
    c. Positioning a patient:
        (1) Fowler's
        (2) Lateral
        (3) Supine
    d. Moving a patient:
        (1) Turning a patient
        (2) 3-man lift
        (3) Moving a patient up in bed
        (4) Moving a patient from bed to chair
        (5) Bed to stretcher
    e. Ambulating a patient:
        (1) Assisting a patient to:
            (a) sit
            (b) stand
            (c) walk
        (2) Protection of a falling patient
    f. Use of equipment:
        (1) Wheelchair
        (2) Siderails
        (3) Overbed table
        (4) Call lights
        (5) Electric bed- making an unoccupied bed
        (6) Belts
        (7) Hoyer lift
        (8) Walker
    g. Application of restraints:
        (1) Wrist-ankle
        (2) Posey (vest)
        (3) Waist
    h. Accurately record data and actions

4. Identify appropriate information nurses may provide to assist the patient to maintain the physical environment component of the Safety Need.
5. Identify factors to consider in the evaluation of nursing care.

C. SUGGESTED RESOURCES FOR UPGRADING ENTRY LEVEL OBJECTIVES:

1. Brunner, L.S. and Suddarth, D.S. (1984) Textbook of Medical-Surgical Nursing (pp. 230-238) Philadelphia: J.B.Lippincott Co.

2. Smith, S. and Duell, D. (1985) Clinical Nursing Skills (pp. 78-82, 88-99, 120-139, 148-152, 266-279, 285-286) Los Altos, CA: National Nursing Review.

3. Misik, I. (1981 August) About Using Restraints with Restraint Nursing '81 pp. 50-55.

4. Narrow, B.W. and Buschle, K.B. (1982) Fundamentals of Nursing Practice (pp. 316-334, 515-526) New York: John Wiley & Sons.

5. Carmack, B. (1981 August) Fighting Fire, Your Role in Hospital Fire Safety Nursing '81 pp. 61-63.

6. ATTACHMENT: Independent Review

7. AUDIOVISUALS:
   a. Health Care Fire Safety, Mark-Maris,Inc. 1980
   b. Patient Safety, Concept Media 1980
      WY 60 P298 PARTS I & II

VOCABULARY LIST

1. Cupping
2. Cradling
3. Exercises
    a. active (assistive)
    b. passive
    c. resistive
    d. isotonic
    e. isometric
4. Osteoporosis
5. Fowlers position
6. Lateral position
7. Supine position
8. Sims position
9. Prone position
10. High Fowlers position
11. Semi Fowlers position
12. Low Fowlers position
13. Recumbent position

PATIENT SAFETY — PART I

INDEPENDENT REVIEW

STUDY QUESTIONS

Select the best response:

1. When admitting an 80-year-old male patient to the unit, the health team member notes that the patient is alert and oriented and appears to have no difficulty walking. She should:
   a. Be especially aware of safety hazards in his immediate environment since he may be accident-prone.
   b. Treat him just like any other patient since he has demonstrated that he is oriented and able to walk without difficulty.
   c. Encourage the patient to do as much for himself as possible when nursing personnel are busy caring for other patients.
   d. Consult with the doctor about this particular patient.

2. A team member has a personal problem that has been troubling her. In addition, she spilled her orange juice at breakfast and bumped the fender of her car in the hospital parking lot. She is now at work. She should:
   a. Work a little faster and a little harder to forget her personal problems.
   b. Call the nursing office and go home sick.
   c. Discuss the situation with another staff member or the nurse in charge and be very cautious in her work.
   d. Discuss the problem with her patient.

3. Which of the following locations is the site of most patient accidents?
   a. The bathroom
   b. The hallway
   c. The patient unit
   d. X-ray

4. Which type of accident occurs most frequently in the hospital?
   a. Burns
   b. Falls
   c. Electrical shocks

5. An ambulatory patient asks a team member if he may smoke. Although no oxygen is running, the oxygen regulator is plugged into the wall. The member should:
   a. Allow him to smoke since no oxygen is running.
   b. Forbid him to smoke at all.
   c. Ask him to leave the room if he must smoke.
   d. Ask him to smoke on the other side of the room away from the oxygen regulator.

6. A health team member is uncertain whether or not to raise the side rails on the bed of a patient who appears to be weak and very ill. The patient has requested that the health team member not put up the side rails. The health team member should:
   a. Leave the rails down as the patient wishes.
   b. Put the side rails up and leave the patient alone so that she will forget about the incident.
   c. leave the rails down and consult with the nurse in charge.
   d. Raise the side rails and consult with the nurse in charge.

7. A team member experiences a small shock while unplugging an examining lamp from the wall. She should:
   a. Repeat the action to see if she was mistaken. She should then report the incident.
   b. Ignore the incident since it probably will not happen again.
   c. Plug the lamp into another outlet to see if all the outlets in the room are defective.
   d. Discontinue using the lamp and immediately report the incident to the nurse in charge.

8. A member of the health team notices that a key for a controlled temperature pad has been left in the control unit at a patient's beside. The health team member should:
   a. Remove the key from the patient's bedside and return it to the location where it should be stored.
   b. Teach the patient the correct way to control the temperature of the pad.
   c. Leave the key at the bedside.
   d. Remove the key from the patient's bedside and carry it with her until the pad is returned to Central Supply.

9. After accompanying a male patient into a bathroom, a student nurse notes that the patient appears pale and is perspiring. The patient appears to be embarrassed and requests that she leave the room. She should:
   a. Help the patient be seated and leave alone to preserve his modesty.
   b. Press the call button in the bathroom and remain with the patient.
   c. Help the patient into a comfortable position and search for an orderly on the unit.
   d. Stay with the patient regardless of his objections.

10. Which sequence of events would be safer for a health worker to follow when helping a patient into a bathtub?
    a. Assist the patient into the tub, fill the tub with water that is 95-105 degrees F., remain with the patient for a few minutes to detect any sign of weakness.
    b. Fill the tub with water that is comfortably warm to the touch, assist the patient into the tub, and leave the patient alone while he bathes to preserve his modesty.
    c. Fill the tub with water that is 95-105 degrees F., assist the patient into the tub and remain with the patient to detect any sign of weakness.
    d. Assist the patient into the tub, fill the tub with water that is comfortably warm to the touch and help the patient wash hard-to-reach areas of his body.

PATIENT SAFETY — PART II

INDEPENDENT REVIEW

STUDY QUESTIONS

Select the best response:

1. While giving a bed bath to an 89-year-old lady, the team member notes that the patient appears to have difficulty following instructions. The team member should:
   - a. Give the patient additional information since she may want to know why she is being asked to do certain things.
   - b. Give the patient the bath without talking to her since she will probably not be able to understand what the team member is saying.
   - c. Speak a little more rapidly and a little louder in order to gain the patient's attention.
   - d. Give the patient instructions in a concise manner and avoid giving her too much information at one time.

2. While assisting an elderly patient to a sitting position on the side of the bed as preparation for ambulation, the health team member notes that the patient suddenly appears pale and is perspiring. The patient appears to have difficulty maintaining his balance. The team member should:
   - a. Continue to help the patient out of bed since he will feel better once he is on his feet.
   - b. Help the patient out of bed and assist him into the chair.
   - c. Help the patient back into bed, lower the head of the bed and press the signal device to call for help.
   - d. Leave the patient in the sitting position, move the chair closer to the bed so the patient may support himself, and immediately search for the team leader or the nurse in charge.

3. An ambulatory patient who is being assisted to the bathroom tells the health care worker that he feels he is going to faint. The health care worker should:
   - a. Help the patient into a nearby chair and move his head down and over his knees.
   - b. Try to hold the patient in the upright position and call for help.
   - c. Move the furniture out of the patient's way so that he will not hurt himself as he falls.
   - d. Ask another patient to help hold the patient in the upright position.

4. A health care worker observes an elderly patient about to enter a brightly lighted sun porch from a dimly lighted hall. The health worker should:
   - a. Caution the man to walk slowly when entering the brightly lighted room.
   - b. Say nothing since older patients only have problems seeing at night or when the light level is low.
   - c. Forbid the patient to go from dark areas to areas that are brightly lighted because he may have an accident.
   - d. Pull the drapes in the sunroom so that it will be dark as the hallway.

5. An elderly lady must get up to go to the bathroom several times during the night. The health team member should:

   a. Leave the side rails down so that it will be easier for her to get up to go to the bathroom by herself.
   b. Avoid turning on the lights when the patient gets up, to make it easier for her to fall asleep again after she returns from the bathroom.
   c. Put the side rails up and encourage the patient to call for assistance when she needs to get up.
   d. Put the bedpan out of the patient's sight so that she will not be reminded of her problem.

6. A patient who is confused or disoriented at times asks the team member if he may smoke a cigarette. The physician's orders do not forbid smoking. The health worker should:

   a. Allow him to smoke but remain with him and remove all smoking items when he is through.
   b. Give him his cigarettes, matches and an ash tray since he appears alert.
   c. Refuse to let him smoke.
   d. Allow him to smoke but have the patient in the next bed watch him closely.

7. While assisting a patient out of bed at 7:00 am, the team member notes that the patient appears drowsy and has difficulty keeping his eyes open. The patient has not received any medication since he took his sleeping pills at 11:00 pm the previous night. The health care worker should:

   a. Treat the patient like any other patient, since the pills were given to him too long ago to have any effect.
   b. Ask the patient if he is strong enough to walk unassisted.
   c. Take the same precautions that she would take for any other sedated patient.
   d. Allow the patient to walk, but insist that he remain in the patient unit.

KEY FOR STUDY QUESTIONS

PATIENT SAFETY

PART I		PART II	
1.	A	1.	D
2.	C	2.	C
3.	C	3.	A
4.	B	4.	A
5.	C	5.	C
6.	D	6.	A
7.	D	7.	C
8.	A		
9.	B		
10.	C		

IV. The Nursing Process as it Applies to the Patient Experiencing Stressors Affecting the Ability to Maintain the Biologic Component of the Safety Need; Personal Hygiene.

A. INTRODUCTION: These objectives examine personal hygiene. The nursing process is the framework for the focus of assessment and selected nursing interventions which assist patients to maintain the personal hygiene component of the Safety Need.

B. ENTRY LEVEL OBJECTIVES:

Prior to beginning the module on the Safety Need, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors affecting the personal hygiene component of the Safety Need based upon:
    - a. Identification of the sources of data regarding a patient's ability to maintain his personal hygiene.
    - b. Explanation of the changes in the following structure from adolescence through the aging process.
        - (1) Skin
        - (2) Oral cavity
        - (3) Eyes
        - (4) Ears
        - (5) Male and female genitalia
        - (6) Taste
        - (7) Smell
        - (8) Dexterity
    - c. Discussion of the stressors of "Hospital routine" on personal hygiene practices.
    - d. Explanation of stressors of limitation of movement on the skin.
        - (1) Explain the physiology of the development of a decubitus ulcer.
        - (2) Identify the common anatomical locations for decubitus ulcer formation.
        - (3) Identify the signs and symptoms of decubitus ulcer.
        - (4) Identify patients at risk for decubitus ulcers.
    - e. Discussion of the psychosocial aspects of personal hygiene practices in terms of:
        - (1) Sexuality
        - (2) Cultural diversity
        - (3) Spirituality
        - (4) Locus of decision-making
        - (5) Personal hygiene practices
    - f. Discussion of the nursing assessment of normal and abnormal findings of the following:
        - (1) Skin
        - (2) Oral cavity
        - (3) Hair
        - (4) Nails
        - (5) Eyes
        - (6) Ears
        - (7) Male and female genitalia

g. Discussion of the impact of stressors affecting personal hygiene on PERSON.

2. Discuss the components of a nursing care plan assisting a patient experiencing stressors affecting the ability to maintain the personal hygiene component of the Safety Need.
    a. State the principles related to patient hygiene
    b. Discuss the purposes of a bath
    c. Identify the types of baths and their modifications:
        (1) Patient with an IV
        (2) Patient with an indwelling catheter (Foley)
        (3) Patient with an external catheter
    d. Identify the pruposes of a back rub
    e. Identify principles of medical asepsis, body mechanics and safety as applied to the following hygiene measures:
        (1) Bed bath
        (2) Tub bath
        (3) Shower
        (4) Partial bath
        (5) Oral care
        (6) Hair and nail care
        (7) Genital care
        (8) Foley cath care
        (9) Foot care
        (10) Changing linens
        (11) Shampoo in bed
        (12) Back rub
    f. Identify nurisng actions which may facilitate the patient's ability to maintain the personal hygiene component of the Safety Need in the following situations:
        (1) Body odor
        (2) Poor oral status
        (3) Special hair conditions
        (4) Foot care
        (5) Special skin conditions
        (6) Use of bedpan, urinal, bedside commode
    g. Identify the ethical/legal nursing responsibilities relevant to the care of the patient with:
        (1) Eyeglasses
        (2) Contact lenses
        (3) Artificial eye
        (4) Dentures
        (5) Other prosthesis
    h. Explain how the nurse can organize to conserve time and energy of both self and patient when providing hygiene care.
    i. Discuss nursing actions which can minimize and/or prevent decubitus ulcer formation.
    j. Identify appropriate information which nurses may provide patients regarding personal hygiene.

3. Demonstrate the ability to safety perform the following nursing interventions:
    a. Bed bath
    b. Foley cath care
    c. Hair care
    d. Oral care
    e. Nail care
    f. Back rub
    g. Occupied and unoccupied bed- eggcrate mattress
    h. Assessment of the integumentary system, oral cavity, eyes, ears, and male and female genitalia.
    i. Assistance with bedpan, urinal, bedside commode.

4. Identify factors to consider in evaluation of nursing care.

C. SUGGESTED RESOURCES FOR UPGRADING ENTRY LEVEL OBJECTIVES:

1. Potter, P.A. and Perry, A.G. (1987) Basic Nursing (pp. 621-675) St. Louis: C.V.Mosby Co.

2. Perry, A.G. and Potter, P.A. (1986) Clinical Nursing Skills and Techniques: Basic, Intermediate, and Advanced (pp. 120-145, 152-233,) St. Louis: C.V. Mosby Co.

3. Ramas, L.Y. (1981 August) Oral Hygiene for the Elderly American Journal of Nursing pp. 1468-1469.

4. Meissner, J. (1980 June) Which Patients on Your Unit Might Get a Pressure Sore? Nursing '80 pp. 64-65.

5. ATTACHMENTS:
    a. Principles Related to Patient Hygiene
    b. Structural Assessment Related to Hygiene
    c. Common Skin Disruptions

6. AUDIOVISUAL: Pressure- PART I-- Types, Effects and Fundamental Concepts in Nursing, Concept Media 1973. WY 598 P935 1973 FS/AC.

VOCABULARY LIST

1. complete bed bath
2. abbreviated bed bath
3. partial bath
4. friction
5. necrosis
6. slough
7. shearing force
8. maceration
9. petrissage
10. effleurage

. tapotement

REVIEW OF DEFINITIONS

Circumcision	Surgical removal of the end of the prepuce.
Venereal disease	Sexually transmitted disease.
Smegma	Cheesy material secreted by sebaceous gland of inner surface of male prepuce and female labia.
Erection	Engorgement and hardening of the penis or clitoris as a result of neurological stimulus.
Callus	A usually painless area of greatly thickened skin which occurs as a result of recurrent pressure on normally thick skin of the body areas such as the soles of the feet.
Corn	A painful conical thickening of skin occurring over bony prominences which results from recurrent pressure on normally thin skin, for example, outer aspect of fifth toe.
Glossitis	Inflammation of the tongue.
Gingivitis	Inflammation of the gums.
alitosis	Offensive breath odor.
Albino	A person with skin deficient in pigment.
Alopecia	Baldness
Paronychia	Inflammation of tissues surrounding the nail plate.
Parotitis	Inflammation of the parotid gland.
Peridontal disease or Pyarrhea	Inflammation and degeneration of gums, teeth, and surrounding bone.
Plaque	A patch on the skin or on a mucous surface. Also an invisible film of mucus and bacteria which collects around teeth when oral care is neglected.
Sordes	An accumulation of crusts, secretions, and debris about the teeth and mouth.
Stomatitis	Inflammation of the oral mucosa.
Puberty	Onset of fertility when gametes are produced and secondary sex characteristics appear.
imosis	Constriction of the foreskin over the glans penis.
Climacteric	Age related phenomenon of reduced sexual activity and sexual competence.

PRINCIPLES RELATED TO PATIENT HYGIENE

1. Personal care patterns are learned.
2. Individuals vary in their style and approach to personal care.
3. Individuals vary in their need for personal care.
4. Skin is kept lubricated by sebum.
5. The amount of sebum is increased during puberty and decreased in old age.
6. Skin irritation can result from the build up of oily secretions.
7. The exocrine glands that produce sweat are located in all parts of the body.
8. The aprocrine glands are concentrated mainly in the axillary, genital and anal areas of the body.
9. Bacterial interaction with aprocrine secretion results in an odoriferous smell.
10. Bacterial interaction with food can destroy tooth enamel and the gums.
11. Frequent hair brushing stimulates the production of oil and prevents drying of the scalp.
12. Soaps and detergents decrease the surface tension of water.
13. Decreased surface tension helps in fat emulsification.
14. Intact skin and mucous membrane serve as the first barriers of defense for the body against injury and disease.
15. The degree to which the skin protects the underlying tissues from injury depends upon the general health of the cells, the amount of subcutaneous tissue and melanin, and the degree of dryness of the skin.
16. Sensory receptors in the skin are sensitive to heat, pain, touch and pressure.
17. Excessive moisture in contact with the skin for a period of time can result in skin irritation.
18. Excessive dryness of the mucous membrane, for example, in the oral cavity, can result in crusting and infection.
19. Special care to the skin is necessary to prevent pressure sores and to overcome the effects of impaired circulation to parts close to body surfaces.
20. Bacteria require moisture for growth and the reproduction; therefore, special care to the skin includes keeping it dry.
21. Long smooth strokes on the arms and legs that are directed from the distal to the proximal increase the rate of venous flow.
22. The heat of the body is given off through convection at the surface of the skin.

STRUCTURAL ASSESSMENT RELATED TO HYGIENE

NORMAL SKIN:

1. Pigmentation -- brownness varies with race.
2. Turgor -- gently pinched skin quickly falls back into place when released.
3. Skin is smooth, soft, and flexible.
4. Pigmented spots -- normal variations.
5. No pallor, blueness, redness, yellowing, or decreased color.

ASSESSMENT:

Color

Lesions -- macules, patches, papules, plaques, vesicles, bulla, pustules, ulcers, fissures, etc.

Grouping of lesions -- clustered, linear, annular (ring-shaped groups).

Distributions of lesions -- localized, generalized, on exposed surfaces, on skin folds.

Mechanical injury -- contusion/bruise, excoriation, abrasion, laceration, maceration.

Swelling

Moisture -- dryness, sweating, oiliness

Texture -- turgor

Inspect and palpate as needed.

Normal hygiene -- no odor, no abnormal lesions, no breaks in skin, first line of defense.

ORAL CAVITY

NORMAL -- Goal for Hygiene (Narrow, p. 369)

Lips -- pink, smooth, moist

Tongue -- firm, medium red, moist, freely movable, not swollen, or smooth

Mucous membranes -- pink, moist

Gums -- firm, pink, moist, close to teeth

Teeth -- shiny, clean, intact or repaired, no pain

Saliva -- thin, watery

Assessment by inspection.

AIR

NORMAL -- Goal for Hygiene

Soft, fine-coarse, shiny (thicker and drier in blacks)

Normal distribution -- not easily plucked

Inspect and palpate -- assessment.

NAILS

NORMAL

Convex and follow natural curve of finger, no swelling, smooth firm base, nail plate clear and transparent, underlying tissue pink.

EYES

NORMAL

Inspection -- bright, clear, moist

Eyebrows and eyelashes present -- no lesions

Eyelids -- no swelling, discoloration, lesions, or positional faults

Eyeballs -- not sunken or protruding

Conjunctivae and sclerae -- no discoloration, prominent blood vessels

Cornea, iris, pupils -- symmetrical, no abrasions

**No discharge/drainage, swelling or discoloration

EARS

NORMAL

External structures -- no skin lesions, pus, blood (small amount cerumen may be visible)

GENITALIA

(External genitalia, perineum and rectal areas -- skin and mucous membranes) symmetrical, normal skin, mucosa intact, clean, dry absence of odor, absence of abnormal discharge

Female -- some clear mucus and smegma, menstrual flow

Male -- smegma, especially if uncircumcized

COMMON SKIN DISRUPTIONS

TYPE	DESCRIPTION	EXAMPLE
Erythema	Skin redness as a result of vasolidation.	Any kind of a blow, rash
Macule	A flat spot of skin color change.	Nevi, roseola
Nodule	A solid elevation of the skin which extends into the dermis or subcutaneous tissue; larger than 0.5 cm in diameter.	Swollen glands
Papule	A spot on the skin which can be felt; less than 0.5 cm in diameter.	Measles, eczema
Plaque	A raised, flat series or cluster of nodules or papules.	Acne, chicken pox
Vesicle	A small (up to 0.5 cm in diameter) sac within the layers of the skin filled with fluid; if larger than 0.5 cm in diameter, called a bulla.	Chicken pox, poison ivy; Blister, second-degree burn
Wheal	Elevations of the skin caused by edema in the dermis; can be red and warm to touch; may be characterized by itching.	Hives, mosquito bites
Secondary lesions	Lesions resulting from changes in primary lesions.	
Atrophy	Thinning of epidermis or dermis with resultant shining and translucency of skin.	Arterial insufficiency
Crust	Dried drainage from a wound or lesion.	Seborrhea, impetigo
Erosion	Moist area of superficial tissue loss.	Cervical erosion
Excoriation	Abrasion of a primary lesion with removal of the epidermis.	Scratches of an itchy (pruritic) lesion
Fissure	Linear crack or break in the skin surface.	Athelete's foot; anal fissure
Scales	A thin, dry flake shed from the epidermis.	Dandruff, psoriasis, dry skin
Scar	Replacement of skin tissue by fibrous or connective tissue.	
Keloid	Excessive or hypertrophied scar production.	
Ulcer	Open lesion with loss of epidermis and upper dermis.	Decubitus ulcer, statis ulcer

V. AQUISITION OF KNOWLEDGE FOR MEDICATION ADMINISTRATION

A. INTRODUCTION: The use of drugs is a part of the broad spectrum of therapeutic interventions. A nurse's safe administration of medications requires the development of knowledge, skills, and attitudes congruent with the roles and functions of nursing. The focus of this class will be the knowledge of the concept of drugs as a therapeutic intervention.

B. ENTRY LEVEL OBJECTIVES:

Prior to the study of the module on the Safety Need, the student should be able to:

1. Identify abbreviations and symbols related to pharmacology and medication administration (HANDOUT).
2. Define the terms on the vocabulary list(HANDOUT)
3. Differentiate between the following terms:
    a. Chemical name of drug
    b. Official or generic name of drug
    c. Trade, brand, or proprietary name of a drug
4. Identify major types of drug classification systems.
5. Differentiate between the following types of pharmaceutical preparations or drug forms:
    a. Syrup-aqueous solutions
    b. Mixtures
       Emulsions   aqueous suspensions
       Magma
    c. Gels
    d. Spirits
    e. Elixirs
    f. Tinctures
    g. Fluid extracts
    h. Extracts
    i. Capsules
    j. Tablets- enteric coated, compressed
    k. Lozenges or troches
    l. Pills
    m. Powders
    n. Liniments
    o. Lotions
    p. Ointments
    q. Suppositories
6. Discuss legal and ethical implications of drug administration as related to nursing roles and responsibilities.
7. Discuss the legislation controlling drugs in the United States:
    a. Pure Food and Drug Act of 1906
    b. Federal Food, Drug and Cosmetic Act 1938
    c. Harrison Narcotic Act. 1914
    d. Controlled Substance Act. 1972
8. Explain the implications for nursing relative to these laws.

9. Discuss psychosocial aspects of drug therapy including self-medication and patient compliance with prescribed drug therapy.
10. Differentiate between the following publications which provide drug information:
    a. USP
    b. NF National Formulary (N.F.)
11. Describe factors that modify a drug's action
12. Describe the four stages of drug metabolism:
    a. Absorption
    b. Distribution
    c. Biotransformation
    d. Excretion
13. List factors which affect drug absorption in the intestine.
14. List factors which affect absorption of drugs when administered through the:
    a. Skin
    b. Oral mucosa
    c. Rectal mucosa
    d. Nasal mucosa
    e. Eye
    f. Ear
15. Describe effects of nutrients/nutrition on drug therapy.
16. Discuss variables that affect the elderly person's response to medication.
17. Identify criteria used in selecting the route of administration.
18. Discuss the following a nurse must know before administration of the drug.:
    a. Generic name and trade name
    b. Normal dose or range of dosage
    c. Route of administration
    d. Purpose or desired action
    e. Common side effects
    f. Contraindications
    g. Special asepcts of administration
    h. Essential patient teaching
19. Discuss the following aspects of responses to drugs:
    a. Desired action
    b. Side effect
    c. Toxic effect
    d. Comulative effect
    e. Allergic reaction
    f. Idiosyncracy
    g. Drug interaction
    h. Tolerance
    i. Dependence
20. Identify the responsibilities of the following persons in relation to medication:
    a. Physician
    b. Pharmacist
    c. Nurse
    d. Patient
21. Identify the necessary components of drug order

22. Explain the following types of drug order:
    a. Single dose (STAT)
    b. Single dose (specified time)
    c. Multiple dose (limited q 4 h x 4 days)
    d. Multiple dose (indefinitely)
    e. Multiple dose (PRN)
23. Identify drugs and/or classifications of drugs which necessitate "automatic stop dates".
24. Describe methods commonly used in hospitals for communicating drug orders.
25. Explain the following terms related to drug ordering and dispension:
    a. Stock supply system
    b. Individual supply system
    c. Unit dose system
    d. Self-medication system
26. Explain the five rights of medication administration.
27. Explain the following routes of medication administration:
    a. Oral
    b. Inhalation
    c. Topical
    d. Parenteral
    e. Intravenous
28. Discuss nursing responsibilities in case of medication error.

C. LEARNING RESOURCES:

1. Potter, P.A. and Perry, A.G. (1987)
   Basic Nursing (pp. 501-523, 543, 546-559)
   St. Louis: C.V.Mosby Co.

2. Perry, A.G. and Potter, P.A. (1986)
   Clinical Nursing Skills and Techniques: Basic, Intermediate and Advanced (pp. 531-577)
   St. Louis: C.V.Mosby Co.

3. Nursing '87 Drug Handbook (1987)
   Springhouse, PA: Springhouse Corp.

4. Davis, N. and Cohen, M. (1982 March)
   Learning from Mistakes: 20 Tips for Avoiding Medication Errors Nursing '82, 12, pp.65-72

5. Cohen, M.R. (1987 July) Play It Safe, Don't Use These Abbreviations Nursing '87, 17, pp. 46-47.

6. ATTACHMENT: Principles Related to Medication Administration.

7. OPTIONAL- MEDIA: Concept Media: QV 38 D794
    a. PROGRAM #1- Administration and Absorption of Oral Drugs.
    b. PROGRAM #3- Administration and Absorption of Non-Injectables.

ADMINISTRATION OF MEDICATIONS

ABBREVIATIONS AND SYMBOLS

or dr = dram
lb = pound
gtt = drop
ac = before meals
aq = water
bid = twice a day
c = with
cap(s) = capsule(s)
cc = cubic centimeter
D/C (DC) = discontinue
elix = elixir
ext = extract
Fe = iron
fld = fluid
Gm or g = gram
gr = grain
h = hour
HS or hs = at bedtime (hour of sleep)
IM = intramuscular
IU = international unit
IV = intravenous
Kg = kilogram
L = liter
liq = liquid
meq = millequivalent
mg = milligram
ml = milliliter
mm = millimeter
mx or M = minim
NPO = nothing by mouth
OD = right eye
OS = left eye
os = mouth
OU = both eyes
= oz = ounce
p = after
pc = after meals
per = by
p.m. = afternoon
po = by mouth
prn = whenever necessary
pt = pint
qd = everyday
qh = every hour
qid = four times a day
qn = every night
qod = every other day
qt = quart
q 2 hrs = every two hours
s = without
sc = subcutaneous
sig = to write
sol = solution
ss = one half
stat = immediately
T or tbsp = tablespoon
t or tsp = teaspoon
tid = three times a day
tinct = tincture
U = unit
ung = ointment
via = by way of

PHARMACEUTICAL PREPARATIONS

VOCABULARY LIST

Syrup

Aqueous sol. with 1 or more substances dissol in water. Has 85% sucrose for demulcent effect.

Mixtures, emulsions, magma

Aqueous suspensions -- preparation of finely divided drugs intended for susp. or in already in susp. i.e. penicillin G.

Mix -- solid material in liquid

Emulsions -- fats or oils in water with aid of emulsifying agent--easily digested

Magma -- milks -- white like milk -- bulky susp. of insolu. prep. in H_2O as Milk of Magnesia

Gels -- aqu. supp. in hydrated form

Spirits

Concentrated alcohol solutions in volatile substances also called essences. Alcohol is preservative as well as solvent.

Elixir

Aromatic, sweetened, alcoholic preparation use often as flavored vehicle or as active medicinal agents as phenobarb elixir.

Tincture

Alcoholic or hydroalcoholic solution prepared from plant drugs or from chem. solutions. Tinctures prepared by extracting the drug from its crude source or by making alcoholic solution of drug. Alcohol improves stability and facilitates solutions of poorly soluble drugs.

Fluid extracts

Alcoholic liquid extracts or extract or vegetable drugs. Most concentrated and stronger than tincture. May precipitate in light.

DOSAGE FORMS

Capsules--popular

Most popular form for administration of power-dissolve fast in stomach. Made of gelatin. Can have coating that resists acid and won't disintegrate til in small intestine. Called enteric coated.

Can be spansules -- long acting

time spans--sustained release

Tablets

Preparation powdered drug compressed or molded into small disks made with or without a diluent (dextrose, lactose, starch) and differ greatly in size, shape, weight.

Compressed tablets -- made with heavy machinery -- contain also a diluent, binder, disintegrator, and lubricant. Can be scored.

May have enteric coating.

Molded tablets -- disintegrate readily. Can be hypodermic tablets.

Can case harden -- interfere with absorption

Can be sustained release

Troches -- Lozenges

Flat, round, rectangular

Have concentrations high in mouth, designed to be dissolved in mouth. For local effect.

Pills

Mixtures of a drug or drugs with cohesive material. Mass molded into different shapes. Can't use for injection. Few pills exist today.

owders

Finely divided solid drugs or mixtures of drugs for internal or external use.

Linaments

Liquid suspension or dispersions for external use. Applied to skin by rubbing.

Lotions

Liquid suspension or dispersions for external applications. Should be patted on the skin. Not for rubbing.

Ointments

Semi solid preparations of medicated substances in some base as petroleum and lanolin. For external use. Doesn't wash off easily.

Suppositories

Mixtures of drugs with a firm base that can be molded into shapes for insertion into a body cavity or orifice. Dissolves at body temperature. Sizes and shapes vary.

PRINCIPLES RELATED TO MEDICATION ADMINISTRATION

1. An individual's responses to medications are unique.
2. Medications given for therapeutic purposes may have effects other than those for which they are intended.
3. Medications interact with other chemicals in the body.
4. Placing medications toward the back of the tongue reduces unpleasant taste.
5. Accompanying oral medications with iced or cold water reduces the sensation of unpleasant taste.
6. Drug dosages are dependent on the size, weight, physiologic functioning, and maturity of the individual.
7. The liver is the major detoxifying organ of the body.
8. Medications must reach the bloodstream to produce systemic effects.
9. Degree and speed of absorption are related to the distance from point of administration to bloodstream, type of tissue between point of administration and bloodstream, and interferences with absorption.
10. Drug action takes place at the cellular levels.
11. Drug responses may be physical, physiologic, and/or psychosocial.
12. Attitudes toward chemical safety are learned.
13. Knowledge and attitudes about medications and the ability to purchase them influence medication patterns.
14. Drugs to increase appetite are given prior to meals.
15. Drugs to reduce gastric acidity are given after meals.
16. Administration of oral medications is carried out using clean technique.

VI. The Nursing Process as it Related to the Patient Experiencing Stressors of Non-Parenteral Medications.

A. INTRODUCTION: This class uses the nursing process as the framework for the examination of safe administration of drugs. This focus is the knowledge, skills, and attitudes necessary for assessment of the patient and nursing actions related to medication administration.

B. ENTRY LEVEL OBJECTIVES:
Prior to the study of the module on the Safety Need, the student should be able to:

1. Identify the components necessary to assess a patient experiencing the stressors of medications based upon:
   a. Discussion of the influence of the nurse's attitudes and values on objectivity in obtaining a medication history.
   b. Explanation of the usual method of handling medications from home.
   c. Identification of the nursing assessment measures prior to administration of medications.
   d. Discussion of the impact of the stressors of medications on PERSON.

2. Identify the components of a nursing plan of care for the patient experiencing stressors of medications based upon:
   a. Explanation of the rationale for the guidelines/procedures of:
      (1) Preparation of drugs
      (2) Administration of drugs
      (3) Reporting and recording of drugs
   b. Explanation of the procedures for administration of:
      (1) Oral medication
      (2) Sublingual medication
      (3) Ear gtts/ointments
      (4) Eye gtts
      (5) Nasal inhalants
      (6) Topical drugs
      (7) Suppositories
   c. Identification of nursing actions to facilitate administration of non-parenteral medications.
3. Identify appropriate information nurses may provide patients experiencing the stressors of non-parenteral medications.
4. Demonstrate the ability to safely perform:
   a. Assessment of a patient prior to administration of medications.

- b. Administration of:
  - (1) Tablets
  - (2) Capsules
  - (3) Liquids
  - (4) Sublingual drugs
  - (5) Ear gtts/irrigations
  - (6) Eye gtts/ointments/irrigations
  - (7) Nasal inhalants
  - (8) Topical drugs
  - (9) Suppositories
- c. Accurately record data and actions

5. Identify factors to consider in the evaluation of nursing care.

C. LEARNING RESOURCES:

1. Perry, A.G. and Potter, P.A. (1986) Clinical Nursing Skills and Techniques: Basic, Intermediate, and Advanced (pp. 531-577) St. Louis: C.V.Mosby Co.

2. Potter, P.A. and Perry, A.G. (1987) Basic Nursing (pp. 501-523, 543, 546, 559). St. Louis: C.V.Mosby Co.

VII. The Nursing Process as Related to Administration of Injectable Drug Forms (Parenteral)

A. INTRODUCTION: This subunit prepares the student to safely administer medications by intramuscular, intradermal, and subcutaneous routes. A practice laboratory facilitates development of technical expertise in this area.

B. ENTRY LEVEL OBJECTIVES:

Prior to beginning the module on the Safety Need, the student should be able to:

1. Identify the components necessary to assess a patient experiencing the stressors of injectable medications based upon:
    a. Description of the psychological aspects of the administration of drugs by injection.
    b. Identification of the ethical-legal considerations in the administration of injectable drugs.
    c. Discussion of the advantages and disadvantages of giving medications by injection versus other routes of administration.
    d. Description of the common uses, amount of drug and injection sites for the administration of drugs by the:
        (1) intradermal route
        (2) subcutaneous route
        (3) intramuscular route
    e. Description of patient characteristics that determine the choice of injection site, the selection of needle length and the specific technique employed.
    f. Identification of the anatomical landmarks utilized in selection of the injection sites.

2. Utilize appropriate nursing principles in planning care for the patient experiencing the stressors of injectable drugs.

3. Demonstrate the ability ot safely perform the following skills/interventions:
    a. Intradermal injection technique
    b. Subcutaneous injection technique
    c. Intramuscular injection technique
    d. Z-track technique
    e. Use of tubex
    f. Opening ampules and withdrawing solution
    g. Mixing medications

4. Discuss topics which nurses utilize to provide information to an adult patient who is receiving parenteral medications.

5. Identify factors to consider in evaluation of nursing care.

C. LEARNING RESOURCES:

1. Perry, A.G. and Potter, P.A. (1986) Clinical Nursing Skills and Techniques (pp. 579-613) St. Louis: C.V.Mosby Co.
2. Potter, P.A. and Perry, A.G. (1987) Basic Nursing: Theory and Practice (pp. 524-539) St. Louis: C.V.Mosby Co.
3. FILMS/VIDEOTAPES: DRUGS -- Action and Interaction Program 2 "Administration and Absorption of Injectables" QV 38 D794 1976 FS.

SUPPLEMENTAL:

1. Chaplin, G. (1985) How Safe is the Air-Bubble Technique for IM Injections Nursing '85 (9), pp. 59.
2. McConnell, E. (1982) The Subtle Art of Really Good Injections RN (2) pp. 25-34
3. Rittig, F. and Southby, J. (1982) Using Different Body Positions to Reduce Discomfort from Dorsogluteal Injections Nursing Research, (4) pp. 219-221.
4. Winfrey, A. (1985) How Much is Too Much? Nursing '85 pp. 38-39.

VIII. Nursing Care of the Patient Experiencing the Stressors of Surgery.

A. INTRODUCTION: These learning objectives focus on the perioperative period. This knowledge provides the basis for the application of the nursing process to aid an adult patient experiencing the stressors of surgery.

B. ENTRY LEVEL OBJECTIVES:
Prior to beginning the module on the Safety Need, the student should be able to:

1. Use appropriate medical terminology to give a descriptive name to a surgical procedure.
2. State criteria for types of surgical procedures based on the urgency of the procedure, e.g., elective vs emergency.
3. Identify the roles of the health care team in the management of the adult patient experiencing the stressor of surgery.
4. Plan nursing interventions to enhance wound healing (based on physiological principles):
   a. Heat and Cold
   b. Dressings
   c. Other

C. LEARNING RESOURCES:

1. Brunner, Lillian Sholtis and Doris Smith Suddarth Textbook of Medical-Surgical Nursing 5th Ed. Philadelphia: J.B. Lippincott Co. 1984 pp. 347-413

2. Narrow, Barbara W. and Kay B. Buschle Fundamentals of Nursing Practice New York: John Wiley and Sons, 1982 pp. 551-567, 310-311, 454.

3. Smith, Sandra and Donna Duell Clinical Nursing Skills Los Altos, CA: National Nursing Review 1985 pp. 570-590.

4. Nursing '86 Drug Handbook Springhouse, PA: Springhouse Corp. 1986 (select drugs as needed)

5. ATTACHMENT: Roles and Functions of OR Personnel

WOUND HEALING TERMINOLOGY LIST

1. wound
2. incision
3. contusion
4. laceration
5. puncture
6. debridement
7. I & D (incision and drainage)
8. fibroblasts
9. suppuration
10. granulation
11. keratinization
12. dehiscence
13. evisceration
14. serosanguinous
15. hypovolemia
16. keloid
17. hematoma
18. sterile
19. penrose drain
20. hemovac
21. sanguinous
22. purulent
23. ABD (abdominal dressing)
24. 4 x 4
25. sloughing
26. montgomery straps
27. telfa
28. exudate
29. singultus

ROLES AND FUNCTIONS OF O.R. PERSONNEL

DIRECTOR OF SURGERY:

Supervisor of employees in the surgical unit and recovery room. Provides leadership and direction for employees. Develops budget and interprets hospital policies.

HEAD NURSE/CHARGE NURSE:

Supervises the daily activities of the operating room; i.e., runs surgical schedule. Delegates duties to personnel and evaluates their performance.

CIRCULATING NURSE:

RN assigned to ensure the smooth operation of each surgical suite. In charge of the room, delegates duties, checks each patient prior to surgical procedure. Responsible for recordkeeping (sponge/needle count documentation, etc.).

SCRUB NURSE/OPERATING ROOM TECHNICIAN (ORT):

Assigned to individual surgical suites to scrub, organize/set up sterile field, pass instruments, and assist physician during each surgical procedure.

AIDES/ORDERLIES:

Personnel utilized to clean (wet mop and vacuum) the operating room between surgical procedures. Also involved in transporting patients to the operating room pre-operatively.

ANESTHESIOLOGIST:

Doctor of medicine who specializes in anesthesia. Administers and/or supervises the administration of anesthetics.

NURSE ANESTHETIST (CRNA):

RN educated and certified in the administration of anesthesia. Remains with the patient throughout surgical procedure to monitor the effects of anesthesia.

SURGEON:

Doctor of medicine, specializing in surgical treatment of medical conditions. Refers patients for surgery and supervises/conducts surgical procedure. Specialties include General, Cardiovascular, Orthopedic, Obstetrics/Gynecology, Opthalmology, etc.

ROLES AND FUNCTIONS OF OTHER TEAM MEMBERS

RECOVERY ROOM NURSE:

GENERAL DUTY SURGICAL NURSE:

RESPIRATORY THERAPIST:

PHYSICAL THERAPY:

LABORATORY TECHNICIAN:

PATHOLOGIST:

APPENDIX II

ENTRY LEVEL OBJECTIVES FOR THE REST, COMFORT, ACTIVITY, AND REGULATION NEED

INTRODUCTION AND OVERVIEW

A. INTRODUCTION: This subunit of the appendix examines the components of the "R" need. The focus is the acquisition of the knowledge about the need and provides the basis for understanding how individuals usually maintain the "R" Need.

B. ENTRY LEVEL OBJECTIVES:
Prior to the study of the module on rest, comfort, activity, and regulation, the student should be able to:
1. Discuss the components of the "R" Need.
    a. Rest component:
        (1) Explain the need for physiologic and psychologic rest.
        (2) Describe relaxation
    b. Sleep component:
        (1) Compare REM and NREM sleep
        (2) Describe the four stages of NREM sleep
        (3) Discuss the factors affecting sleep
    c. Comfort component:
        (1) Explain the process of sensory perception
        (2) Define sensoristasis
        (3) Define comfort
    d. Activity component:
        (1) Discuss the concept of Activities of Daily Living (ADL).
        (2) Explain the benefits of activity
    e. Regulatory component:
        (1) Explain the functions of the following organs in regulation of body systems:
            (a) pituitary gland
            (b) adrenal glands
            (c) thyroid gland
            (d) parathyroid gland
            (e) pancreas

2. Explain the relationships among the components of the need.

3. Describe the effects of aging on the individual's ability to maintain the "R" Need.

4. Identify criteria which indicate an individual is maintaining the "R" Need.

C. LEARNING RESOURCES:
1. Potter P.A. and Perry, A.G. (1987) Basic Nursing (pp. 120, 439-440, 561-564, 575-581, 929-930) St. Louis: C.V.Mosby Co.

The Nursing Process as it Applies to the Patient Experiencing Stressors Affecting the Ability to Maintain the "R" Need.

A. INTRODUCTION: This subunit of the appendix explores the use of the nursing process when a patient needs assistance in maintaining his "R" Need. Emphasis is placed on stressors which effect a patient's ability to maintain the need and selected nursing skills necessary for assessment and intervention.

B. ENTRY LEVEL OBJECTIVES:
Prior to the study of the module on rest, comfort, activity and regulation, the student should be able to:
1. Identify the components necessary to assess a patient experiencing stressors affecting his ability to maintain the Rest, Sleep, Activity, Comfort and Regulatory Need based upon:
    a. Discussion of stressors which commonly affect the "R" Need:
        (1) Insomnia
        (2) Sensory overload
        (3) Sensory deprivation
        (4) Fatigue/tension
        (5) Pain-discomfort
        (6) Inactivity-immobility
    b. Identification of the signs and symptoms related to stressors commonly affecting the "R" Need.
    c. Explanation of the usual therapeutic interventions employed in maintaining the "R" Need.:
        (1) Explain physiologic action of common drug groups used in assisting the individual in maintaining his "R" Need:
            (a) sedative
            (b) hypnotic
            (c) antianxiety agents
            (d) muscle relaxants
        (2) Describe physical activity regimens commonly prescribed:
            (a) identify the role and functions of the physical therapist.
            (b) identify assistive devices used in ambulation.
            (c) describe the benefits of bedrest
        (3) Describe relaxation techniques, including muscle massage.
    d. Explain the impact of stressors affecting a patient's ability to maintain the "R" need on PERSON.

2. Identify the components of a nursing plan of care to assist the patient to maintain the "R" need based upon:
    a. Identification of appropriate nursing actions to facilitate:
        (1) Reduction in sensory overload
        (2) Reduction in sensory deprivation
        (3) Overcoming sensory deficits:
            (a) poor vision
            (b) hearing loss
        (4) Sleep

3. Identify appropriate information to provide to patients experiencing stressors affecting their ability to maintain the "R" Need.

4. Demonstrate the ability to safely perform the following:
    a. Massage, using two massage techniques
    b. PM care
    c. Accurately record data and actions

5. Identify factors to consider in the evaluation of nursing care.

E. LEARNING RESOURCES:

1. Potter, P.A. and Perry, A.G. (1987) Basic Nursing (pp. 440-450, 564-572, 582-594, 930-939,) St. Louis: C.V.Mosby Co.

2. Gordan, M. (1976 January) Assessing Activity Tolerance AJN pp. 72-75

3. Narrow, B.W. (1967 August) Rest is-- AJN pp. 1646-1649.

4. Nursing '87 Drug Handbook (1987) Springhouse, PA: Springhouse Corp.

5. ATTACHMENTS:
    a. Principles Related to Sleep
    b. Principles Relevant to Sensory Distrubance
    c. Major Safety Hazards REsulting from Sensory Interference.
    d. Principles Related to Sensory Needs

VOCABULARY LIST

1. insomnia
2. sleep deprivation
3. sensory overload
4. sensory deprivation
5. REM sleep
6. NREM sleep

PRINCIPLES RELATED TO SLEEP

1. Sleep patterns vary with level of growth and development and with individual biorhythms.
2. Amount of sleep needed at a given time is influenced by activity level, state of health, and degree of anxiety.
3. Sleep habits are learned.
4. Sleep is necessary for wellness and survival.
5. Sleep is divided into five stages.

Stage 1:	Characterized by alpha waves
Stage 2:	Characterized by spindle waves
Stage 3:	Characterized by a mixture of spindle and delta waves
Stage 4:	Characterized by delta waves
Stage 5:	REM sleep characterized by rapid eye movements and brain activity--dreaming occurs at this stage.

6. Usual sleep patterns can be interrupted by environmental distractions, medications, anxiety, and pain.
7. Sleep occurs during periods of minimum body temperature.
8. Sleep alterations can lead to behavioral and somatic disturbances.

aken From: Brill, Esther Levine and Dawn F. Kilts. Foundations for Nursing Practice. New York: Appleton-Century-Crofts, 1980. pp. 621.

PRINCIPLES RELEVANT TO SENSORY DISTURBANCE

1. Psychosocial equilibrium requires that individuals have adequate sensory stimulation.
2. Stimuli picked up by the sense organs provide the body with information about the external environment.
3. Integrity of the sense organs is essential for sensory perception.
4. Sensory perception can be distorted in patients who are ill.
5. Damage to nerve tissues caused by disease or injury can interfere with sensory perception.
6. Communication provides an important means of sensory stimulation.
7. All sensory receptors adapt either partially or totally, to their various stimuli over a period of time.
8. The brain is active even in the absence of stimuli from the external environment.

MAJOR SAFETY HAZARDS RESULTING FROM SENSORY INTERFERENCE

Sensory Alteration	Hazard	Implications
Decreased vision	Difficulty in distinguishing objects in the environment.	Bumping into and tripping over objects, difficulty recognizing people, difficulty manipulating equipment.
	Difficulty in reading labels, signs.	Taking wrong medication, difficulty in finding places, things or in following written instructions.
	Altered depth perception.	Falling down stairs, difficulty crossing streets.
Loss of vision	Inability to use sight to carry out activities of daily living.	Must use other senses to compensate for loss.
Decreased hearing	Sounds muffled, indistinguishable.	Difficulty in understanding conversation.
	May not be able to recognize the direction of sound source.	Difficulty in picking up environmental warnings such as horns honking, people shouting.
	May not distinguish variations in sound.	Inability to focus on direction of warnings.
	Certain sound ranges may be present while others lost, thereby making it difficult to recognize the alterations in sound.	May lose sound from environment without realizing or accepting loss. Inappropriate responses to name, or sounds; may appear as disorientation.
Loss of hearing	Inability to use hearing to carry out activities of daily living.	Must use other senses to compensate for loss.
Altered equilibrium	Inability to distinguish place in space. Dizziness; Nausea; Lack of coordination.	Difficulty in maneuvering.
Alterations in smell	Inability to smell noxious odors.	May not be alert to dangerous odors such as smoke, gas fumes.
	Decrease in taste	Decreased enjoyment of food. Decreased ability to distinguish noxious foods.
Alterations in taste	Inability to distinguish among various tastes.	Decreased enjoyment of food. Decreased ability to distinguish noxious foods.

Alteration in pressure sense	Inability to distinguish changes in weight of objects.	Injury to skin and body parts without recognition of injury.
	Inability to distinguish changes in force of objects.	Decreased recognition of objects that bind such as braces, tight clothing, and dressing.
	Inability to distinguish texture.	Banging into objects without realization of degree of impact.
Alterations in temperature sense	Decreased ability to distinguish heat and cold.	Burns or frostbite as result of exposure to hot or cold objects without realization of temperature of object.
Alterations in neuromuscular coordination; Paresis (muscle weakness) Paralysis (loss of muscle function)	Inability to carry own weight. Inability to bear weight on affected body part.	Stumbling, falling, dropping. Supports needed for walking, such as braces, crutches, walkers.
	Inability to perform activities of daily living with affected body part.	Tissue injury, incontinuence, skills need to be relearned or performed by others.
Ataxia (uncoordinated muscle movement)	Unsteady gait. Uncoordinated gross motor movements.	Loss of balance when walking, bumping into objects, dropping things; difficulty in carrying out purposeful activities.
Tremors	Difficulty in carrying out minute motor functions.	Spilling, lack of clarity in writing, speech.

Taken From: Brill, Esther Levine and Dawn F. Kilts. Foundations for Nursing Practice. New York: Appleton-Century-Crofts, 1980. pp. 208-209.

PRINCIPLES RELATED TO SENSORY NEEDS

1. Continuous meaningful stimuli from the environment is necessary for survival.
2. Any stimulus which is repetitious and unchanging becomes meaningless to the individual (white noise).
3. Stimuli from the environment are received through the sense organs; the eyes, ears, nose, mouth, skin, and viscera.
4. The sensory process involves reception of a stimulus, perception and interpretation, transmission, and response.
5. Perception requires proper reception and translation of stimuli into units meaningful to the individual.
6. The body responds to reception of all stimuli in both observable and nonobservable behaviors.
7. The meaning of stimuli is individual.
8. The characteristics of a stimulus, in part, determine its meaning.
9. Intact receptors, afferent pathways, efferent pathways, and effector sites are necessary for the total utilization of the sensory process.
10. Behavioral alterations occur whenever there is an interruption in the sensory process.
11. The central nervous system coordinates all higher level cognitive, physical and motor activities.
12. The autonomic nervous system, along with the hormonal system integrates vital functioning of the body.
13. Sensory deficits result in alterations in body image.

Taken From: Brill, Esther Levine and Dawn F. Kilts. Foundations for Nursing Practice. New York: Appleton-Century-Crofts, 1980. pp. 201.

The Nursing Process as it Applies to the Patient Experiencing Stressors of Immobility.

A. INTRODUCTION: There are various types of immobility which have significant effects on individuals. This unit identifies the types of immobility. The focus is the hazardous effects of physical immobility using the nursing process as the framework for discussion.

B. ENTRY LEVEL OBJECTIVES:
Prior to the module on rest, comfort, activity and regulation, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors of immobility based upon:
    - a. Description of the types of immobility
    - b. Explanation of the effects of the stressors of immobility on PERSON.
        - (1) Identify the signs and symptoms for early detection of problems.

2. Identify the components of a nursing plan of care to assist the patient experiencing stressors of immobility based upon:
    - a. Explanation of the term "continuity of care"
    - b. Explanation of the scientific rationale for the use of:
        - (1) Flotation pad
        - (2) Sheepskins
        - (3) Alternating pressure mattresses
        - (4) Mechanical beds
        - (5) Exercises
            - (a) explain the physiology of bone formation and destruction.

3. Identify appropriate information to privide to patients experiencing stressors of immobility.

4. Identify factors to consider in the evaluation of nursing care.

C. LEARNING RESOURCES:

1. Potter, P.A. and Perry, A.G. (1987) Basic Nursing (pp. 450-464) St. Louis: C.V.Mosby Co.

2. Olsen, E. (1967 April), The Hazards of Immobility American Journal of Nursing pp. 781-797.

APPENDIX III

ENTRY LEVEL OBJECTIVES FOR THE NUTRITION/ELIMINATION NEED

INTRODUCTION AND OVERVIEW

A. INTRODUCTION: This subunit of the appendix examines the three components of the Nutrition Need; food, nutrients and H_2O. The focus is the acquisition of knowledge of the need. This knowledge provides the necessary basis for understanding how individuals normally maintain the Nutritional Need.

B. ENTRY LEVEL OBJECTIVES:
Prior to the study of the module on the Nutrition/Elimination Needs, the student should be able to:
1. Discuss the three major components of the Nutrition Need.
   a. Food:
      (1) Differentiate between food habits and food beliefs.
      (2) Discuss the factors influencing the development of food habits.
      (3) Explain the use of food as a coping mechanism.
      (4) Identify the food habits of the following groups:
         (a) Asian
         (b) Italian
         (c) Jewish
         (d) Southern U.S.
         (e) Hispanic
      (5) Explain the factors affecting food pattern trends in the United States.
   b. Nutrients:
      (1) Identify the primary reason for eating.
      (2) Explain the four other physiologic reasons for eating.
      (3) Identify the six nutrients essential for man and their three major functions.
      (4) Explain the relationship of nutrients to energy.
      (5) Discuss energy in terms of human life processes.
      (6) Explain in general terms, the processes of transformation of energy.
      (7) Discuss energy control in human metabolism
      (8) Explain the factors affecting an individual's energy requirements.
   c. Water:
      (1) Explain the physiological need for water in man.
      (2) Discuss the mechanism of thirst
      (3) Identify factors which impact the need for water in man.

2. Discuss factors to consider relating to Dietary Guidelines in terms of maintaining the Nutrition Need.

3. Explain the physiological effects of aging which impact the ability to maintain the Nutrition Need.

4. Relate the social and economic problems of aging which impact the ability to maintain the Nutrition Need.

5. Define the role of nutrition in the aging process in relation to specific nutrient needs.

6. Discuss nutrition-related problems of aging commonly occurring in the clinical area.

7. Identify community resources to assist patients to maintain the Nutrition Need.

8. Explain the term Malnutrition.

9. Identify primary factors underlying malnutrition in terms of both a national and world health problem.

10. Discuss factors which lead to confusion and misinformation regarding nutritional intake.

11. Identify groups at risk for incorporation of misinformation regarding nutritional intake.

12. Discuss obesity in terms of a health problem.

13. Explain factors underlying obesity.

14. Discuss the factors/rationale which provide the basis for a therapeutic program for management of simple obesity.

15. Discuss the therapeutic management for profound obesity.

16. Explain potential health problems related to the management of obesity.

C. SUGGESTED RESOURCES FOR UPGRADING ENTRY LEVEL OBJECTIVES:

1. Williams, S.R. (1986) Essentials of Nutrition and Diet Therapy (Ch. 1,5,9,13,15) St. Louis: C.V.Mosby Co.

2. Potter, P.A. and Perry, A.G. (1987) Basic Nursing (pp. 679-708, 361-374, St.Louis: C.V.Mosby Co.

VOCABULARY LIST

1. basic four food groups

2. carbohydrate

3. coenzyme

4. empty calories

5. enzyme

6. fat

7. glucose

8. glycogen

9. hormone

10. metabolism

mineral

12. nutrient
    a. essential nutrient

13. nutrition

14. protein

15. Recommended Dietary Allowances (RDA)

16. vitamin

17. Basal Metabolic Rate (BMR)

18. nutrient density

19. calorie

20. caloric density

21. energy

22. catabolism

23. anabolism

24. nonbasal energy requirements

25. lean body mass

26. appetite
27. hunger
28. satiety
29. malnutrition
30. "natural (organic) foods"
31. food additives
    a. enriched food
    b. fortified food
32. protein-energy malnutrition
33. human nutrition
34. fuel factor
35. energy
36. adenosinetriphosphate (ATP)
37. substrate
38. obesity
39. body composition

THE NUTRITIVE PROCESS

A. INTRODUCTION: This subunit of the appendix continues the examination of the Nutrition Need. The focus is the processes involved in changing food intake to its userable form for cellular nutrition. This knowledge serves as the basis for the use of the nursing process in assisting a patient to maintain the Nutrition Need.

B. ENTRY LEVEL OBJECTIVES:
Prior to the study of the module on Nutrition, the student should be able to:

1. Identify the components of the nutrition process.
2. Explain the processes by which food is altered in its form for use at the cellular level.
   - a. Explain the process of ingestion
   - b. Discuss mechanical digestion throughout the GI tract.
   - c. Discuss chemical digestion throughout the GI tract.
   - d. Explain the process of absorption
   - e. Explain the process of metabolism
3. Explain the utilization of the following nutrients:
   - a. Carbohydrate:
     - (1) Discuss the relationship of carbohydrates to energy need and production.
     - (2) Identify the functions of carbohydrates and their role in metabolism.
     - (3) Explain the primary factors influencing the high worldwide dietary intake of carbohydrates.
     - (4) Give examples of food sources of carbohydrates
     - (5) Describe the processes by which carbohydrates are changed into usuable forms.
     - (6) State the relationship between fiber and various health problems.
   - b. Fat:
     - (1) Discuss the relationship of fats to energy need and production.
     - (2) Identify the functions of both food fats and body fat.
     - (3) Discuss the relationship of fat intake to health problems.
     - (4) Give examples of food sources of fat
     - (5) Describe the process by which fats are changed into usable forms.
   - c. Protein:
     - (1) Discuss the functions of protein in the body
     - (2) Describe the general process by which tissue protein is built.
     - (3) Explain the types of amounts of food proteins needed in adult diets.
     - (4) Discuss the relationship of protein intake to health problems.
     - (5) Explain the relationship of protein metabolism to hemeostasis.
     - (6) Give examples of food sources of protein
     - (7) Describe the processes by which proteins are changed into usable forms.

d. Vitamins:
  (1) Identify the functions of vitamins
  (2) Explain how vitamins are absorbed, transported and stored.
  (3) Discuss the relationship of each vitamin to health problems.
  (4) Give examples of food sources for each vitamin.
  (5) Describe situations indicating a need for vitamin supplementation.
  (6) Discuss factors affecting the requirements for each vitamin.

e. Minerals:
  (1) Explain the forms in which minerals occur
  (2) Describe the functions of minerals
  (3) Give examples of food sources for minerals
  (4) Discuss the relationship of the minerals to health problems.
  (5) Identify the role of minerals in maintaining body water balance.
  (6) Explain the absorption-excretion balance of minerals.

f. Water:
  (1) Explain the functions of water in the body
  (2) Discuss the composition of the body water compartments.
  (3) Explain the mechanisms (physiologic) of fluid balance.
  (4) State ways the necessary fluids are provided
  (5) Identify sources of fluid losses

4. Discuss the roles and functions of the nurse in assisting a patient to maintain the Nutrition Need.

C. SUGGESTED RESOURCES FOR UPGRADING ENTRY LEVEL OBJECTIVES:

1. Potter, P.A. and Perry, A.G. (1987) Basic Nursing (pp. 679-708) St. Louis: C.V.Mosby Co.

2. Williams, S.R. (1986) Essentials of Nutrition and Diet Therapy (Ch. 2-4, 6-8) St. Louis: C.V. Mosby Co.

VOCABULARY LIST

Objectives 1-2

1. ingestion
2. digestion
    a. mechanical
    b. chemical
3. absorption
4. nutrient transport
5. metabolism
6. peristalsis
7. intramural nerve plexus
8. mastication
9. salivary glands
10. salivary amylast (ptyalin)
11. gastroesophageal sphincter (LES)
12. bolus
13. chyme
14. mucus
15. pepsin
16. gastric lipase
17. gastrin
18. enterogastrone
9. secretin
bile
21. cholecystokinen
22. villi
23. miroville
24. brush border
25. ileocecal valve
26. glyconeogenesis
27. glycolysis
28. glycogenolysis
29. insulin
30. lipogenesis
31. glucagon
32. somatostatin

Carbohydrate

1. carbohydrate
    a. simple
    b. complex
2. monosaccharide
    a. glucose (dextrose)
    b. fructose
    c. galactose
3. disaccardie
    a. sucrose
    b. lactose
    c. maltose

4. polysaccharide
    a. starch
    b. glycogen
    c. dextrin
    d. dietary fiber
    e. crude fiber
5. hypoglycemia
6. hyperglycemia
7. ptyalin
8. pancreatic amylase
9. ketoacidosis

Fat

1. fat
    a. glyceride
    b. fatty acids
    c. glycerol
2. lipid
3. linoleic acid
4. adipose
5. lipoprotein
6. saturated fat
7. monounsaturated fat
8. polyunsaturated fat
9. essential fatty acid
10. prostoglandin
11. triglyceride
12. hydrogenation
13. cholesterol
14. ester
15. steroid
16. phospholipid
17. chylomicrons
18. very low-density lipoproteins (VLDL)
19. intermediate low-density lipoproteins (ILDL)
20. low-density lipoprotein (LDL)
21. high-density lipoprotein (HDL)

Protein

1. amino acid
    a. essential
    b. non-essential
2. protein
    a. complete
    b. incomplete
3. trypsin
4. hydrolysis
5. nitrogen balance

vegetarian diet
    a. lactoovovegetarian
    b. lactovegetarian
    c. pure vegan

7. albumin
8. globulin

Vitamin

1. vitamin
2. fat soluble vitamin
3. water soluble vitamin
4. hypervitaminosis
5. megadoses

Mineral

1. mineral
    a. major
    b. trace elements
    c. macrominerals
    d. microminerals
2. bioavailability
3. tetany
4. osteoporosis
5. aldosterone
6. osmosis
7. hemoglobin

ferritin

anemia

Water

1. body water
2. water compartments
    a. intracellular
    b. extracellular
        (1) vascular
        (2) interstital
3. solute
4. electrolyte
5. colloidal osmotic pressure
6. filtration
7. active transport
8. diffusion
9. hydostatic pressure
10. angiotensin
11. renin
12. plasma protein

PRINCIPLES OF NUTRITION

1. Cellular processes require adequate amounts of protein, carbohydrates, fats, vitamins, minerals and water for (1) tissue maintenance and repair, (2) energy, and (3) synthesis of hormones, antibodies, enzymes and tissue.

2. Carbohydrates provide the most immediate sources of energy for the body.

3. Carbohydrates are used for energy before other nutrients, conserving protein for its vital functions.

4. Carbohydrates are necessary for the proper breakdown and desposition of fats.

5. Intake of excessive amounts of carbohydrates leads to a buildup of fat deposits in the body.

6. Insulin is necessary for the transport of glucose across the cell membrane.

7. Depletion of carbohydrate storesd occurs within 24-48 hours.

8. Fats provide the most concentrated source of energy for the body.

9. Fats are broken down by hydrolysis into fatty acid and glycerol.

10. The metabolism of fat is regulated by such hormones as insulin, glucocorticoids, corticotrophin, growth hormones, thyroxine, epinepherine and norepinepherine.

11. Fats are necessary for the absorption of the fat soluble vitamins: A, D, E, K.

12. Fat is stored as adipose tissue in the subcutaneous level of the skin and surrounding the major organs.

13. Fats help to maintain the structural integrity of the cell and help to control the permeability of the cell.

14. Fats help to prevent tissue from trauma.

15. Fats are utilized in blood clotting as an essential component for thromboplastin.

16. Depletion of fat stores occurs within 5-6 weeks.

17. Proteins are necessary for building, maintaining and repairing body tissue.

18. Proteins are necessary to synthesize the nucleoproteins, antibodies, hormones, enzymes, hemoglobin, and plasma proteins.

19. Proteins help maintain fluid balance by regulating oncotic pressure.

20. Proteins help maintain the pH balance of the blood by acting as buffer systems.

21. Proteins provide energy when other sources are unavailable.

22. Amino acids make up proteins.

23. Essential amino acids are those which cannot be produced by the body and must be supplied in the diet.

24. Since amino acids cannot be stored in the body, daily intake of protein is necessary.

25. Protein metabolism is regulated by the growth hormones, glucocorticoids, testosterone, and thyroxine.

26. Adequate amounts of protein are necessary to maintain nitrogen balance.

27. A negative nitrogen balance results when protein is used for energy needs.

28. Metabolism results in the production of energy, which is measured in kilocalorie.

29. A kilocalorie is the unit of measure which reflects the amount of energy necessary to raise 1 kilogram of water 1 degree centigrade.

30. Water is an important constituent of the body, serving to maintain internal temperature and acting as a medium for chemical reactions.

31. Nausea and vomiting are reflexes.

2. Reflex centers for nausea and vomiting are located in the medulla oblongata.

33. Appetite is controlled, in part, by centers in the cerebral cortex.

34. Hunger, feeding and satiety centers are located in the hypothalmus.

35. Food preferences and patterns are learned behaviors.

36. Nutritional patterns and habits are difficult to change.

37. Undereating and overeating may be coping mechanisms.

38. All processes of ingestion, digestion and metabolism can be influenced by the psychosocial state of the individual.

39. Changing energy needs and health states require diet modifications.

PRINCIPLES RELATED TO FLUID AND ELECTROLYTE BALANCE

1. Fluids in the interstitial spaces, plasma, spinal cord, gastrointestinal tract, pleural cavity, and peritoneal cavity are extracellular (ECF).

2. Intracellular fluid (ICF) is the fluid found inside the cells.

3. Fluid balance is regulated by the kidneys, endocrine system, fluid intake, electrolyte concentration, the lungs, skin, and gastrointestinal tract.

4. The antidiuretic hormone (ADH) produced in the posterior pituitary is a major control of fluid balance.

5. The osmolarity of the ECF stimulates the hypothalamus to manufacture and relay the message to the posterior pituitary for release of ADH.

6. Diffusion is the movement of particles from an area of high concentration to an area of lower solute concentration.

7. Filtration is the movement of solute and solvent by hydrostatic pressure from areas of higher concentration and/or pressure to areas of lower concentration and/or pressure.

Osmosis is the movement of water across a semipermeable membrane from an area of lower solute concentration to an area of higher solute concentration.

9. Insensible losses of water are those which occur through the lung and skin regardless of fluid intake or output.

10. Sensible losses of water are those which are regulated according to the availability of fluid in the body (i.e., urine, feces, sweat).

11. Sodium is the major cation in the extracellular fluid.

12. Potassium is the major cation in the intracellular fluid.

13. For fluid and electrolyte balance, the anions and cations in the extracellular fluid must equal one another and the anions and cations in the intracellular fluid must equal one another.

14. Aldosterone, produced in the adrenal cortex, plays a major role in sodium balance.

15. The kidneys are responsible for much of the electrolyte balance in the body.

16. An isotonic (isomolar) solution exerts the same osmotic pressure as the fluid on the other side of the membrane and thus maintains equilibrium.

7. A hypertonic (hyperosmolar) solution contains a greater concentration of solute than an isotonic solution. This increases the osmotic pressure in the compartment where it is present, causing the fluid to move into that compartment.

18. Tonicity is controlled by fluid balance in the body and the excretion or reabsorption of electrolytes by the kidneys.

19. A hypotonic solution (hyposmolar) contains a lesser concentration of solute than an isotonic solution. This causes fluid to move out of that compartment.

Taken From: Brill, Esther Levine and Dawn F. Kilts. Foundations for Nursing Practice. New York: Appleton-Century-Crofts, 1980. pp. 575-576.

The Nursing Process as Applied to the Patient Experiencing Stressors of Anorexia, Nausea and Vomiting.

A. INTRODUCTION: This subunit of the appendix explores the use of the Nursing Process when a patient needs assistance in maintaining his "N" Need. Emphasis is placed on specific stressors which affect a patient's ability to maintain the need and the nursing skills necessary for utilization of nursing process.

B. ENTRY LEVEL OBJECTIVES:

Prior to the study of the module on the Nutrition/Elimination Need, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors affecting the ability to maintain the Nutrition Need based upon:
    a. Discussion of stressors which commonly affect the "N" Need.
        (1) Anorexia
        (2) Nausea:
            (a) physiological-based
            (b) anticipatory (taste mediated /anxiety mediated).
        (3) Vomiting
    b. Discussion of the pathophysiology associated with these stressors.
    c. Discussion of the following diagnostic procedures as they relate to the stressors.
        (1) Hemoglobin and hematocrit
        (2) Serum albumin
        (3) Total lymphocyte count
        (4) Upper GI Series
        (5) Ba enema
        (6) Gastroscopy

2. Explanation of the usual medical management (therapeutic interventions), to assist the patient to maintain the Nutrition Need.
    a. Explain the major actions of the following categories of medications.
        (1) antacids
        (2) vitamins
        (3) digestants
        (4) antiemetics
        (5) calories
        (6) miscellaneous
    b. Discuss the role of the dietitian and/or nutritionist.
    c. Identify the principles of Diet Therapy/Enteral Therapy.
    d. Discuss the components of the following hospital diets:
        (1) clear liquid
        (2) modified liquid
        (3) soft
        (4) general

e. Explain the term parenteral therapy
f. Explain the use of fluid regulations
  (1) disucss the term "force fluids"
  (2) discuss fluid restrictions
g. Discuss the impact of stressors affecting the Nutrition Need on PERSON.

3. Identify the components of a nursing plan of care to assist patients experiencing stressors affecting the Nutrition Need.
   a. Identify appropriate nursing diagnosis relative to stressors.
   b. Identify appropriate nursing actions in relationship to nursing diagnosis.
   c. Describe the nursing care of the patient whose doctor has ordered:
      (1) force fluids
      (2) fluid restrictions
      (3) enteral therapy
   d. Explain the responsibilities of the nursing student caring for patients receiving intravenous therapy.
   e. Assess for complications that can occur as a result of stressors.

4. Demonstrate the ability to safely perform:
   a. Nursing assessment of the Nutrition Need
   b. Intake and output
   c. Feeding a patient
   d. Measurement of height and weight
   e. Accurately record data and actions
   f. Insertion/removal of feeding tube
   g. Gastric gavage-- enteral therapy
   h. Administration of medications through GI tubes
   i. Insertion of a nasogastric tube
   j. Irrigation of a nasogastric tube
   k, Illeostomy care
   l. Colostomy irrigation
   m. Colostomy care

5. Identify appropriate information to provide patients to assist in the maintainance of the Nutrition Need.

6. Identify factors to consider in the evaluation of nursing care.

C. SUGGESTED RESOURCES FOR UPGRADING ENTRY LEVEL OBJECTIVES:

1. Lewis and Collier (1987) Medical-Surgical Nursing (pp. 1009-1013) New York: McGraw-Hill.

2. Potter, P.A. and Perry, A.G. (1987) Basic Nursing (pp. 700-708) St. Louis: C.V.Mosby Co.

3. Williams, S.R. (1986) Essentials of Nutrition And Diet Therapy (Ch. 16) St. Louis: C.V. Mosby Co.

4. AUDIOVISUAL:
   Total Ostomy Care VC 216 Module VII

   Discharge Planning and Beyond VC 215

VOCABULARY LIST

1. cerebral cortex
2. limbic system
3. epigastrium
4. hypogastrium
5. RUQ
6. LUQ
7. RLQ
8. LLQ
9. rebound tenderness
10. fluid wave

shifting dullness

12. organomegaly
13. costovertebral angle (CVA)
14. hernia
15. ascites

TYPES OF HOSPITAL DIETS

	CLEAR LIQUID DIET	MODIFIED FULL LIQUID DIET	SOFT DIET	REGULAR-HOUSE GENERAL FULL DIET
aracteristics	Temporary diet of clear liquids without residue; non-irritating, non-gasforming.	Foods--liquid at room temperature or liquifying at body temperature.	"Normal" diet modified in consistency to have low or no fiber content. Fried foods omitted.	Practically all foods--usually omit foods of known intolerances (cabbage) some hospitals instituting diet of American Heart Association as their house diet.
loric content ranges.	400-500 Kcal	1300-1500 Kcal	1800-2000 Kcal	2000-2500 Kcal
proximate nutrient content.	P - 5-10 Gm F - none CHO - 100-120 Gm	P - 45 Gm F - 65 Gm CHO - 150 Gm	Some relative amounts of P, F, CHO as general diet.	P - 60-80 Gm F - 80-100 Gm CHO - 200-300 Gm
equacy	Inadequate--cannot be made adequate by increasing intake. Deficiencies: P, F, CHO, fiber, vitamins, minerals, calories.	Inadequate--can be made adequate with very careful planning except for fiber.	Adequate--low in fiber.	Entirely adequate --well-balanced diet.

	CLEAR LIQUID DIET	MODIFIED FULL LIQUID DIET	SOFT DIET	REGULAR-HOUSE GENERAL FULL DIET
se	Used postoperatively to provide some nutrients and fluid before return of GI function. Relieve thirst. Reduction of colonic fecal material. Temporary food intolerance. 1-2 hour feeding intervals.	Postoperatively. A transition diet between clear and soft diets. Febrile conditions. Intolerance for solid foods. 2-4 hour feeding intervals.	Transition diet between full and regular. Chewing difficulties. Gastrointestinal disorders. Three meals with or without extra feedings.	Uniformity and convenience in serving large groups of patients. Ambulatory patients or bed patients not requiring therapeutic diets. Three meals with or without extra feedings.
ods	Water-tea-coffee; coffee substitutes; fat-free broths (clear); carbonated drinks; Jello; sugar; fruit ices made with strained fruit juice; strained fruit juices and fruit also.	All foods allowed on clear liquid diet plus: Milk-milk beverages, cream malts; strained creamed soups; strained vegetable soups; refined cereals; strained vegetable juice; eggs (raw or soft cooked; ice cream (no seeds, nuts); sherbert; custard; butter margarine, oil salt.	All foods allowed on full liquid diet plus: all liquids; cooked tender or pureed vegetables; cooked fruits without seed or skins; ripe bananas; ground or minced meat, fish, poultry; eggs and mild cheese; plain cakes and puddings; moderate seasonings.	No food restrictions.

DIET THERAPY

1. Classification of dietary modifications
    - a. Modification in consistency or bulk
    - b. Modification in caloric content
    - c. Modification in kinds and amounts of nutrients
    - d. Elimination of individual nutrients
2. Principles
    - a. The diet should supply all essential nutrients as generously as its special characteristics permit.
    - b. The special therapeutic diet should be patterned as much as possible after a "normal" diet.
    - c. The special therapeutic diet should be flexible; it should consider the patients' habits, and preferences; his economic status and any religious rules which might govern his food intake.
    - d. The special therapeutic diet should be adapted to the patients' habits with regard to work and activity.
    - e. The foods which are included in the therapeutic diet must agree with the patient.
    - f. The therapeutic diet should emphasize natural, commonly used foods that are readily available and easily prepared at home.
    - g. When placing a patient on a therapeutic diet there should be simple and clear explanation, including purpose and rationale, provided for the patient and family member responsible for food preparation.
    - h. Attempt to place back on "normal" diet as soon as possible; special diets set people apart (except for maintenance diets).
    - i. The special therapeutic diet must be absolutely justifiable and defensible--only use when necessary.
    - j. Feeding p.o. is always the best route, use it whenever possible!

The Nursing Process as it Applies to the Patient Experiencing Stressors Affecting the Ability to Maintain the Elimination Need.

A. INTRODUCTION: This subunit focuses on the use of the nursing process to assist patients to maintain the Elimination Need.

B. ENTRY LEVEL OBJECTIVES:

Prior to beginning the module on the Nutrition/Elimination Needs, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors affecting the ability to maintain the Elimination Need based upon:
   a. Discussion of stressors which commonly effect the Elimination Need.
      (1) Urinary component;
         (a) obstruction (urinary retention)
         (b) changes in hormonal secretion (ADH)
         (c) changes in blood volume
         (d) changes in fluids
         (e) infection
         (f) external environment
         (g) incontinence
      (2) Intestinal:
         (a) changes in motility:
            (1) constipation
            (2) diarrhea
         (b) obstructions:
            (1) impaction
            (2) other causes
         (c) circulatory deficiencies
         (d) hemorrhoids
         (e) distention
         (f) incontinence
   b. Identification of the signs and symptoms related to these stressors.
   c. Discussion of the following diagnostic/evaluative procedures as they relate to the Elimination Need.:
      (1) Urinary component:
         (a) urinalysis (UA)
         (b) 24-hour urine
         (c) sugar and acetone (C&A)
         (d) culture and sensitivity (C&S)
      (2) Intestinal component:
         (a) barium enema (BE)
         (b) tests for occult blood
         (c) ova and parasites (O&P)
         (d) proctoscopy, colonoscopy,sigmoidoscopy
         (e) other
   d. Discuss the nursing assessment of the Elimination Need:
      (1) Urinary component
      (2) Gastrointestinal component

e. Explanation of the usual therapeutic (medical) management used to assist in maintaining the Elimination Need.
(1) Urinary component:
(a) explain the major action of the following categories of medications:
(1) urinary tract antiseptics
(2) sulfonamides
(3) urinary tract analgesics
(b) discuss the use of diet therapy in assisting patients to maintain the Elimination Need.
(c) explain the use of catheterization
(2) Intestinal component:
(a) explain the major actions of the following categories of medications:
(1) laxatives/cathartics
(a) bulk-forming
(b) emollient
(c) hyperosmolar
(d) lubricant
(e) stimulant
(2) antidiarrheal agents
(3) suppositories
(b) identify the effects of ambulation on the intestinal component of the Elimination Need.
(c) discuss the following types of enemas in relation to assisting the patient to maintain the Elimination Need:
(1) tap H_2O (TWE)
(2) saline (fleets)
(3) soap suds (SSE)
(4) oil retention
(d) explain the use of a rectal tube in assisting a patient to maintain the Elimination Need.
(e) explain the impact of stressors affecting a patient's ability to maintain the Elimination Need on PERSON.
(3) Discuss the use of diet therapy in assisting patients to maintain the Elimination Need.
(4) Identify the effects of activity, especially ambulations, in assisting patients to meet their Elimination Need.

2. Identify the components of a nursing plan of care to assist the patient to maintain the Elimination Need based upon:
a. Identification of the principles of Elimination
b. Identification of the appropriate principles of medical asepsis.
c. Identification of appropriate nursing actions to facilitate:
(1) Urination
(2) Defecation
d. Describe the nursing care of a patient experiencing:
(1) Bladder retraining
(2) Bowel retraining
e. State the principles of diet therapy relating to assisting a patient to maintain the Elimination Need.

3. Identify appropriate information to provide patients experiencing stressors affecting the ability to maintain the Elimination Need.

4. Demonstrate the ability to safely perform the following:
   a. Assessment of lower urinary tract
   b. Collection of urine specimens including clean voided, mid-stream clean catch and 24-hour collection.
   c. Clinitest/acetest
   d. Urine specific gravity
   e. Care of patient with indwelling catheter
   f. Maintain continuous closed irrigation system
   g. Collection of urine specimen from closed system
   h. Care of patient with external catheter
   i. Assessment of lower intestinal tract
   j. Inserting rectal tube
   k. Remove fecal impaction
   l. Administration of rectal suppository
   m. Administration of enema
   n. Collection of stool specimens

5. Identify factors to consider in the evaluation of nursing care.

C. SUGGESTED RESOURCES FOR UPGRADING ENTRY LEVEL OBJECTIVES:

1. Brunner, L.S. and Suddarth, D.S. (1984) Textbook of Medcial-Surgical Nursing (pp. 271 , 760-767, 806-810, 842, 955-960, 962-969, 974-975, 1003-1006) Philadelphia: J.B. Lippincott Co.

2. Potter, P.A. and Perry, A.G. (1987) Basic Nursing-Theory and Practice (pp. 730-768) St. Louis: C.V. Mosby Co.

3. Williams, S.R. (1986) Essentials of Nutrition and Diet Therapy (pp. 381-382) St. Louis: C.V.Mosby Co.

4. Nursing '87 Drug Handbook (1987) Springhouse,PA: Springhouse Corp.

VOCABULARY LIST

1. peristalsis
2. bowel sounds
3. hypermotility
4. laxative
5. cathartic
6. suppository
7. enema
8. tympanities
9. stoma
10. colostomy
11. ileostomy
12. catheterization
13. intermittent catheterization
14. urinary frequency
15. urgency
16. pneumaturia
17. dysuria
18. strangury
19. hesitancy
20. nocturia
21. urinary incontinence
22. stress incontinence
23. enuresis
24. polyuria
25. oliguria
26. hematuria
27. proteinuria
28. anuria
29. incontinency
30. residual urine
31. constipation
32. obstipation
33. melena
34. steatorrhea
35. acholic stools
36. fecal impaction
37. occult blood
38. tarry stools

PRINCIPLES RELATED TO ELIMINATION

1. Bowel evacuation occurs through the contraction and relaxation of the involuntary muscles of the intestinal wall (peristalsis).
2. The defecation reflex results from stimulation of the intestine by feces.
3. The duodenal colic and gastrocolic reflexes initiate movement of the intestine when food is released into the intestine from the stomach.
4. The duodenal colic and gastrocolic reflexes initiate movement of the bowels.
5. Defecation is a voluntary act learned in childhood.
6. The movement of the small intestine is much more rapid than that of the large intestine.
7. Feces contain bacteria, food residue, bile pigments, mucus, inorganic salts, epithelial cells, and water.
8. Movement of the bowel is mainly controlled by innervation from the spinal cord.
9. The main functions of the intestines are completion of the process of digestion, absorption of water, and elimination of waste products.
10. The urinary bladder is made of elastic, smooth muscle which will expand to store up to 1000 or more cc of urine in adults.
11. The urinary tract is a closed, continuous, sterile system.
12. Urine is produced by the kidneys at a rate of 30-55 cc an hour.
13. The amount of urine produced is directly proportional to fluid intake.
14. The amount of urine produced by the kidneys is influenced by the blood flow to the kidneys, antidiuretic hormones, state of hydration, fluid and electrolyte balance, and hydrostatic pressure.
15. Micturition is under voluntary control.
16. Urine contains water, nitrogen, urea, electrolytes, inorganic salts, and pigment.
17. Micturition is mainly controlled by innervation from the spinal cord.
18. Many bowel and bladder patterns are culturally determined.

ken From: Brill, Esther Levine and Dawn F. Kilts. Foundations for Nursing Practice.
New York: Appleton-Century-Crofts, 1980. pp. 535.

APPENDIX IV

ENTRY LEVEL OBJECTIVES FOR THE OXYGEN NEED

INTRODUCTION AND OVERVIEW

A. INTRODUCTION: This subunit of the appendix examines the oxygenation need of the patient. The focus is the acquisition of knowledge about the need. The various components will be discussed with their relationship to the individual's ability to maintain his Oxygenation Need.

B. ENTRY LEVEL OBJECTIVES:
Prior to the study of the module on the Oxygen Need, the student should be able to:

1. Discuss the components of the Oxygenation Need
    a. Explain the normal functioning of the respiratory system:
        (1) Inspiration
        (2) Expiration
        (3) Diffusion
        (4) Regulation and control
    b. Explain normal functioning of the circulatory system.
        (1) Pulmonic
        (2) Systemic
        (3) Regulation and Control
2. Discuss the relationship between the components of the Oxygenation Need.
3. Describe the effects of aging on the patient's ability to maintain his O_2 Need.
4. Identify the criteria which indicate that an individual is maintaining his Oxygenation Need:
    a. Vital Signs
    b. Respiratory criteria
    c. Circulatory criteria

C. LEARNING RESOURCES:

1. Brunner, L.S. and Suddarth, D. (1984) Textbook of Medical-Surgical Nursing (pp. 437-439, 547-551) Philadelphia: J.B. Lippincott Co.
2. Potter, P.A. and Perry, A.G. (1987) Basic Nursing: Theory and Practice (pp 771-780) St. Louis: C.V.Mosby Co.
3. WG 106 B655 Physiology of a Vital Sign PART I AND II 1974

The Nursing Process as it Applies to the Patient Experiencing Stressors Affecting the Ability to Maintain the Oxygenation Need.

A. INTRODUCTION: This subunit of the appendix explores the use of the nursing process when a patient needs assistance in maintaining his "O" Need. Emphasis is placed on stressors which effect a patient's ability to maintain the need and the nursing skills necessary for assessment and intervention.

B. ENTRY LEVEL OBJECTIVES:

Prior to the study of the module on the Oxygenation Need, the student should be able to:

1. Identify the components necessary to assess a patient experiencing stressors affecting the ability to maintain the Oxygenation Need based upon:
    a. Discussion of stressors which commonly affect the Oxygenation Need.
        (1) Respiratory component:
            (a) restrictive
            (b) obstructive
            (c) combination
        (2) Circulatory component:
            (a) cardiac
            (b) vascular
            (c) combination
    b. Identification of the signs and symptoms related to stressors commonly affecting the "O" Need.
    c. Discussion of pertinent information to be acquired in a cardiovascular and respiratory history.
    d. Explanation of the steps in nursing and physical assessment of cardiovascular and respiratory system.
    e. Explain the impact of stressors affecting a patient's ability to maintain the "O" Need on PERSON.
    f. Discussion of the following diagnostic evaluative procedures as they relate to the Oxygenation Need:
        (1) Vital Signs
        (2) Radiographic examinations of the chest
        (3) Sputum studies
        (4) Electrocardiography
        (5) Blood electrolyte studies
    g. Explanation of the usual therapeutic interventions employed in maintaining the "O" Need.
        (1) Explain physiologic action and common drug groups used in assisting the individual to maintain the "O" Need.
            (a) antitussives; expectorants, mucolytics
            (b) antipyretic
            (c) beta (2) - adrenergics
            (d) antihypertensive agents
            (e) expectorant
            (f) vasodilator

        (2) Discuss the following types of O_2 administration in relation to assisting the individual to maintain his O_2 Need.:
            (a) nasal cannula
            (b) O_2 masks
        (3) Discuss the role/functions of the Respiratory Therapist in assisting the patient to maintain the "O" Need.
        (4) Discuss the therapeutic use of sodium restricted diets in assisting the individual to maintain the "O" Need.
    h. Identification of the signs and symptoms of pyrexia which affects patient's ability to maintain the "O" Need.

2. Identify the components of a nursing plan of care to assist the patient to maintain the "O" Need based upon:
    a. Identification of appropriate nursing actions to facilitate:
        (1) Maximum chest expansion
        (2) O_2 exhange in lung
        (3) Blood flow and return in extremities
        (4) Oxygenation need of body
    b. Identification of the effect of commonly occurring stressors of hospital routines on patient's ability to meet the "O" Need.

3. Identify appropriate information to provide patients experiencing stressors affecting the ability to maintain the "O" Need.

4. Demonstrate the ability to safely perform the following:
    a. Measurement of vital signs including apical and apical-radial pulses.
    b. Conduction of history and physical assessment techniques pertinent to "O" Need.
    c. Teaching and assistance to patient in performing effective coughing and deep breathing.
    d. Collection of sputum specimen and throat culture
    e. Positioning of patient to facilitate oxygenation
    f. Administer, along with respiratory therapist, oxygen therapy.
    g. Application of antiembolism hose
    h. Oral-nasotrachael suctioning
    i. Accurately record data and actions

5. Identify factors to consider in the evaluation of nursing care.

C. LEARNING RESOURCES:

1. Brunner, L.S. and Suddarth, D.S. (1984)
   Textbook of Medical-Surgical Nursing
   (pp. 437-440, 442-443, 454-456, 547-563)
   Philadelphia: J.B.Lippincott Co.

2. Nursing '87 Drug Handbook (1987)
   Springhouse: Springhouse Corp.

3. Perry, A.G. and Potter, P.A. (1986)
   Clinical Nursing Skills and Techniques
   (pp. 236-277, 387-403, 323-339, 445-449,
   1186-1192) St. Louis: C.V.Mosby Co.

4. Potter, P.A. and Perry, A.G. (1987)
   Basic Nursing: Theory and Practice
   (pp. 185-211, 214-216, 234-248, 771-782,
   788-793) St. Louis: C.V.Mosby Co.

5. Williams, S. (1986) Essentials of Nutrition
   and Diet Therapy (pp. 464-466, 470)
   St. Louis: Times Mirror/Mosby College Publishing

6. ATTACHMENTS:
   a. Vital Signs Terminology
   b. Principles Related to Oxygenation

OPTIONAL:

1. Dennison, R. (1986) Cardiopulmonary Assessment:
   How to do it Better in 15 Easy Steps
   Nursing '86 16 (4) pp. 34-39.

2. Gurevich, I. (1985) Fever: When to Worry About It
   RN (12), pp. 14-19.

3. Visich, M.A. (1981) Knowing What You Hear:
   A Guide to Assessing Breath and Heart Sounds
   Nursing'81 (11), pp. 64-76

4. Wimsalt, R. (1985) Unlocking the Mysteries
   Behind the Chest Wall Nursing '85

5. AUDIOVISUAL: Chest Therapy: Suctioning
   WF 145 H295C

VITAL SIGNS TERMINOLOGY

TEMPERATURE	
Antipyretic	Agent which reduces fever.
Body temperature	Balance between heat production and heat loss measured in degrees by clinical thermometer.
Circadian rhythm	A rhythmic repetition in biological events in man at approximately the same time each 24 hours.
Conduction	Flow of heat from one object to another with which it is in contact.
Constant fever	Fever remains at essentially the same level for a period of days or weeks.
Convection	Transferance of heat by means of currents in liquids or gases.
Evaporation	Loss of heat due to conversion of liquid into vapor.
Febrile	Feverish or pertaining to fever.
Hypothermia	Abnormally low body temperature.
Hyperthermia	Abnormally high fever body temperature.
Intermittent fever	Fever which falls to normal at some time during a 24 hour period.
Metabolism	Process by which nutrients are utilized to provide energy and heat.
Pyrexia	Fever
Radiation	Emission of infrared heat rays from a common center.
Relapsing fever	Fever with one or more days of normalcy between febrile periods.
Remittent fever	Fever with marked variations--temperature does not reach normal.
RESPIRATION	Act of breathing; interchange of gases between lungs and the atmosphere.
Anoxia	Deficiency of oxygen.
Apnea	A period of cessation of breathing

Cheyne-Stokes respirations	Cyclic pattern of breathing; characterized by very rapid respirations which gradually cease for a period of time, then cycle is repeated.
Cyanosis	Slightly bluish gray or dark purple discoloration of the skin indicating deoxygenated hemoglobin in the blood.
Dyspnea	Labored, difficult and/or painful breathing; normal when due to vigorous work or athletic activity.
Eupnea	Normal breathing
Hyperpnea	Increased respiratory rate which is deeper than usual, a certain degree is normal after exercise.
Hyperventilation	Increase in rate and/or depth of respiration; results in fall in B/P, vasoconstriction, and sometimes syncope.
Hypoventilation	Reduced rate and depth of breathing.
Hypoxia or Hypoxemia	Insufficient oxygenation of the blood.
Kussmaul's respirations	Very deep gasping type of breathing associated with severe diabetic acidosis and coma.
Labored	Breathing which actively involves accessory inspiratory and expiratory muscles.
Orthopnea	Discomfort in breathing in any but erect sitting or standing position.
Polypnea	Very rapid breathing; panting.
Rales and Rhonchi	Abnormal sound (crackling, clicking, rattling or bubbling sound) heard on auscultation of the chest.
Stertorous	Snoring sound of labored breathing.
Stridor	Harsh, high pitched sound (like the blowing of the wind) during respiration; due to obstruction of air passages; crowing sound.
Tachypnea	Abnormally rapid respiration
Wheezing	Whistling sounds during difficult breathing; like in asthma, croup.
PULSE	Throbbing of an artery felt over a bony prominence.
Apical pulse	Pulse counted at apex of heart.
Apical-radial pulse	Pulse counted at apex and wrist simultaneously and then rates compared.

Arrhythmia	Absence of rhythm; irregularity; such as cardiac arrhythmia.
Arterial tension	Compressibility of the wall of the artery; referred to as high or low - soft and hard.
Bounding pulse	Pulse which reaches a higher level than normal, then quickly disappears.
Bradycardia	Slow heart action; pulse lower than 60 per minute.
Fibrillation	Extremely rapid, asynchronous contraction of heart.
Paradoxical pulse	Pulse which is more or less suppressed at close of each full inspiration.
Peripheral pulse	Pulse recorded in arteries (radial or pedal) in distal portion of limbs.
Pulse deficit	Condition in which the number of pulse beats counted at the radial site is less than those counted in the same period of time at the heart.
Radial pulse	Pulse located on inner aspect of wrist; where radial artery passes over the radius.
Tachycardia	Abnormal rapidity of heart action; pulse rate over 100 times/minute.
Thready pulse	Fine, scarcely perceptible pulse.
BLOOD PRESSURE	Pressure exerted by the blood on the wall of any vessel.
Diastolic pressure	Pressure that exists during the relaxation phase between heart beats. It is dependent primarily upon the elasticity of the arteries and peripheral resistance, which is in turn dependent on the caliber of arterioles and capillaries.
Hypertension	Higher blood pressure than normal.
Hypotension	Abnormally low blood pressure.
Karotkoff's Sounds	Sounds heard in Auscultation of blood pressure
Orthostatic hypotension	Hypotension occurring when a person assumes an erect position.
Pulse pressure	Difference between systolic and diastolic pressure. Expressive of the tone of the arterial walls. Normal: systolic pressure is about 40 points greater than the diastolic. Abnormal pulse pressure: a pulse pressure over 50 points or under 30 points.

Systolic pressure	Greatest force caused by the contraction of the left ventricle of the heart.

PRINCIPLES RELATED TO OXYGENATION

1. Respiratory centers in the medulla oblongata regulate inspiration and expiration.

2. An intact, closed respiratory system is necessary for adequate ventilation.

3. Gases flow from areas of higher pressure to areas of lower pressure.

4. During the active process of inspiration the intraveolar pressure, in accordance with Boyle's law, falls below atmospheric pressure and air flows into the lungs.

5. Elastic recoil of the lung tissue is responsible for expiration, which is a passive process.

6. Maintenance of subatmospheric pressure within the thoracic cavities prevents lung collapse.

7. Effortless respiration is accomplished by low airway resistance and a high compliance.

8. Compliance is the elasticity of the lungs.

Gaseous exchange in the alveoli is dependent on diffusion and blood flow.

10. Airway resistance is the resistance produced by the respiratory tract to the flow of air.

11. Intrapleural pressure goes from 757.5 to 754 mm Hg during quiet inspiration.

12. CO_2 is diffused through the aveola membrane 20 times more rapidly than O_2.

13. Alveolar gaseous exchange is dependent on the partial pressure of the gases in the atmosphere.

14. Adequate hemoglobin is necessary for the transport of O_2 to the cells.

15. Patency of the respiratory tract is maintained by:
    - a. Cough reflex
    - b. Sneeze reflex
    - c. Cilia movement
    - d. Proper viscosity of mucus
    - e. Proper secretion of mucus
    - f. Swallowing
    - g. Anatomical structure
    - h. Sighing
    - i. Yawning

16. Activity acts as a stimulus to respiration.

PRINCIPLES RELATED TO OXYGENATION (continued)

17. Activity increases tissue demand for O_2.

18. Activity increases production of CO_2 by the tissues.

19. Activity maintains and improves respiratory muscle tone.

20. Respiratory rate is directly proportional to metabolic rate.

21. Emotional status affects the respiratory pattern.

22. A sitting or upright position facilitates the descent of the diaphragm, aiding lung expansion during inspiration.

23. Respiratory distress produces anxiety and apprehension.

24. Pain affects respiratory pattern.

25. Any sudden external environmental event can affect respiratory pattern.

26. Behavior is altered by O_2 deprivation.

27. O_2 supports combustion.

28. O_2 has a drying effect on mucous membrane.

29. Any interference with O_2 uptake will cause an interference with O_2 transport and utilization.

30. Any interference with O_2 transport and utilization will alter O_2 uptake.

31. Adequate tissue perfusion is necessary for the survival of cells.

32. Cardiac output, tissue perfusion, and cardiac intake are related to:
    a. Efficiency of the pump (heart)
    b. Degree of resistance to blood flow
    c. Viscosity of the blood
    d. Amount of circulating blood
    e. Amount of area to be perfused
    f. Metabolic rate

33. The efficiency of the pump is related to:
    a. Strength of the myocardial muscles
        1. coronary blood supply
        2. muscle tone
        3. muscle size
    b. Electrical conduction
    c. Autonomic nervous system innervation
    d. Electrolyte content of the blood

PRINCIPLES RELATED TO OXYGENATION (continued)

34. The degree of resistance to blood flow is related to:
    a. Elasticity of the blood vessels
    b. Degree of vasoconstriction or vasodilation
    c. Autonomic nervous system innervation to the blood vessels
    d. Resistance of tissues surrounding blood vessels
    e. Force of gravity
    f. Emotional state

35. Viscosity of the blood is related to:
    a. Number of blood cells present
    b. Amount of plasma present
    c. Extracellular regulatory mechanisms -- The more concentrated a solution, the higher its viscosity.

36. Amount of circulating blood is related to:
    a. Hydration of the individual
    b. Tissue demands
    c. Integrity of the closed system
    d. Amount of area to be diffused
    e. Extracellular regulatory mechanisms
    f. Blood-forming tissue (hematopoietic) activity

37. Amount of area to be perfused is related to:
    a. Stature
    b. Amount of adipose tissue
    c. Capillary-tissue diffusion area

38. Metabolic rate is related to:
    a. Activity
        1. Increased activity increases metabolic rate
        2. Decreased activity decreases metabolic rate
    b. Tissue demands (e.g., infection increases metabolic rate)
    c. Hormonal supply
    d. Emotions
    e. Hypothalamic regulating mechanisms

39. Metabolic rate is directly related to:
    a. Heart rate
    b. Blood pressure
    c. Heat production

PRINCIPLES RELATED TO OXYGENATION (continued)

40. Movement of O_2 into the cells and removal of O_2 from the cells is related to:
    a. Hydrostatic pressure
    b. Diffusion area
    c. Cell permeability
    d. Partial pressure of the gases
    e. Number of circulating red blood cells
    f. Hemoglobin level

41. Blood pressure is related to:
    a. Efficiency of the pump
    b. Degree of resistance to blood flow
        1. elasticity
        2. peripheral resistance
    c. Viscosity of the blood
    d. Amount of circulating blood
    e. Amount of tissue area to be perfused
    f. Metabolic rate
    g. Exercise
        1. Increased exercise increases blood pressure
        2. Decreased exercise decreases blood pressure
    h. Position
    i. Emotion
    j. Pain

42. Anxiety increases pulse rate.

43. Pain affects heart rate.
    a. Superficial pain usually increases heart rate by stimulating the sympathetic nervous system.
    b. Deep pain usually decreases heart rate through parasympathetic nervous system control.

Taken from: Brill, Esther Levine and Dawn F. Kilts. Foundations for Nursing Practice. New York: Appleton-Century-Crofts, 1980. pp. 390-391, 344-345.